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INSTITUTE FOR DEFENSE ANALYSES

Handbook for NATO Exercises with CBRN Medical Training

Volume 2

CBRN Simulated Patient Files

NATO CBRN Medical Training Panel

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This Handbook was developed by the chemical, biological, radiological, and nuclear (CBRN) Medical Training Panel, which serves as a liaison between the Joint CBRN Defence Capability Development Group's Training and Exercise Panel and the CBRN Medical Working Group.

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Organisation of the Handbook's Two Volumes

Volume 1: Main Body contains special CBRN medical considerations to help with exercise planning, preparation, and execution throughout the formal North Atlantic Treaty Organization (NATO) exercise process, as described in *Bi-Strategic Command Collective Training and Exercise Directive 075-003*.

Volume 2: Simulated Patient Files (this volume), contains CBRN simulated patient files (also called patient cards) with medical information generated by a subject matter expert (SME) in the specific causative agent or effect.

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1. Introduction

A. Purpose of this Handbook

This handbook is designed to equip the individuals planning and executing a NATO exercise with the resources to accomplish cross-disciplinary chemical, biological, radiological, and nuclear (CBRN) defence and medical training, whether or not CBRN medical support is a primary focus of the exercise. For such training to be successful, a level of CBRN medical expertise is required for certain exercise planning tasks, but the individuals responsible for those tasks are often experts in areas other than CBRN medical support and lack ready access to CBRN medical expertise.

B. Simulated Patient Files

Volume 2 contains the CBRN simulated patient files. For all other contents of this handbook, see Volume 1. This volume contains over 100 template CBRN simulated patient files, with medical information generated by a SME in the specific causative agent or effect. CBRN simulated patient files must be modified by the MEL/MIL scripters to include the relevant incident-specific background information on the patient. Table 1 lists the patient cards that are contained in Chapter 2 of this volume.

Table 1. List of CBRN Simulated Patient Files

Index	CBRN Simulated Patient File
A1	Nerve Agent Survivor—Mild
A2	Nerve Agent Survivor—Mild with Fragmentation Injury
A3	Nerve Agent Survivor—Moderate
A4	Nerve Agent Survivor—Moderate with Fragmentation Injury
A5	Nerve Agent Survivor—Severe
A6	Nerve Agent Survivor—Severe with Fragmentation Injury
A7	Nerve Agent Survivor—Very Severe
A8	Nerve Agent Survivor—Very Severe with Fragmentation Injury
A9	Nerve Agent Non-Survivor—Very Severe
A10	Nerve Agent Non-Survivor—Very Severe with Fragmentation Injury
A11	Atropine Overdose
A12	Opioid Overdose
B1	HD Survivor—Mild Percutaneous Injury
B2	HD Survivor—Mild Inhalation Injury, Mild Ocular Injury
B3	HD Survivor—Moderate Ocular Injury, Mild Percutaneous Injury
B4	HD Survivor—Mild Inhalation Injury, Severe Ocular Injury, Mild Percutaneous Injury, Fragmentation Injury

Index	CBRN Simulated Patient File
B5	HD Survivor—Severe Inhalation Injury, Severe Ocular Injury, Severe Percutaneous Injury
B6	HD Survivor—Severe Inhalation Injury, Severe Ocular Injury, Severe Percutaneous Injury, Fragmentation Injury
C1	Phosgene Survivor—Severe
C2	Phosgene Survivor—Severe with Fragmentation Injury
C3	Phosgene Survivor—Very Severe
C4	Phosgene Survivor—Very Severe with Fragmentation Injury
D1	Chlorine Survivor—Mild
D2	Chlorine Survivor—Mild with Fragmentation Injury
D3	Chlorine Survivor—Moderate
D4	Chlorine Survivor—Moderate with Fragmentation Injury
D5	Chlorine Survivor—Severe
D6	Chlorine Survivor—Severe with Fragmentation Injury
D7	Chlorine Survivor—Very Severe
D8	Chlorine Survivor—Very Severe with Fragmentation Injury
D9	Chlorine Non-Survivor—Very Severe
D10	Chlorine Non-Survivor—Very Severe with Fragmentation Injury
E1	Ammonia Survivor—Mild
E2	Ammonia Survivor—Mild with Fragmentation Injury
E3	Ammonia Survivor—Moderate
E4	Ammonia Survivor—Moderate with Fragmentation Injury
E5	Ammonia Survivor—Severe
E6	Ammonia Survivor—Severe with Fragmentation Injury
E7	Ammonia Survivor—Very Severe
E8	Ammonia Survivor—Very Severe with Fragmentation Injury
E9	Ammonia Non-Survivor—Very Severe
E10	Ammonia Non-Survivor—Very Severe with Fragmentation Injury
F1	Cyanide Survivor—Mild
F2	Cyanide Survivor—Mild with Fragmentation Injury
F3	Cyanide Survivor—Moderate
F4	Cyanide Survivor—Moderate with Fragmentation Injury
F5	Cyanide Survivor—Severe
F6	Cyanide Non-Survivor—Severe
F7	Cyanide Survivor—Severe with Fragmentation Injury
F8	Cyanide Survivor—Very Severe
F9	Cyanide Survivor—Very Severe with Fragmentation Injury
F10	Cyanide Non-Survivor—Very Severe
F11	Cyanide Non-Survivor—Very Severe with Fragmentation Injury
G1	Hydrogen Sulfide Survivor—Mild
G2	Hydrogen Sulfide Survivor—Mild with Fragmentation Injury
G3	Hydrogen Sulfide Survivor—Moderate

Index	CBRN Simulated Patient File
G4	Hydrogen Sulfide Survivor—Moderate with Fragmentation Injury
G5	Hydrogen Sulfide Survivor—Severe
G6	Hydrogen Sulfide Survivor—Severe with Fragmentation Injury
G7	Hydrogen Sulfide Survivor—Very Severe
G8	Hydrogen Sulfide Survivor—Very Severe with Fragmentation Injury
G9	Hydrogen Sulfide Non-Survivor—Very Severe
G10	Hydrogen Sulfide Non-Survivor—Very Severe with Fragmentation Injury
H1	Operational Stress
H2	Heat Injury
I1	Radiation Survivor—Worried Well (no radiation dose)
I2	Radiation Survivor—Cutaneous Burn and Worried (no radiation dose)
I3	Radiation Survivor—Whole-Body Radiation Injury (1–3 Gy)
I4	Radiation Survivor—Whole-Body Radiation Injury (1–3 Gy) with Contamination
I5	Radiation Survivor—Whole-Body Radiation Injury (3–7 Gy)
I6	Radiation Survivor—Whole-Body Radiation Injury (7+ Gy)
I7	Radiation Non-Survivor—Whole-Body Radiation Injury (7+ Gy)
I8	Radiation Survivor—Whole-Body Radiation Injury (1–3 Gy) and Cutaneous Injury (2–15 Gy)
I9	Radiation Survivor—Whole-Body Radiation Injury (3–7 Gy) and Cutaneous Injury (15–40 Gy)
I10	Radiation Survivor—Whole-Body Radiation Injury (3–7 Gy) and Cutaneous Injury (40–550 Gy)
I11	Radiation Non-Survivor—Whole-Body Radiation Injury (7+ Gy) and Cutaneous Injury (550+ Gy)
J1	Nuclear Burn Survivor (1–10 %BSA)
J2	Nuclear Burn Survivor (10–20 %BSA)
J3	Nuclear Burn Survivor (20–30 %BSA)
J4	Nuclear Burn Survivor (≥ 30 %BSA)
J5	Nuclear Burn Non-Survivor (≥ 30 %BSA)
K1	Combined Nuclear Injury—Whole-Body Radiation Injury (1–3 Gy), Burn Injury (20–30 %BSA)
K2	Combined Nuclear Injury—Whole-Body Radiation Injury (1–3 Gy), Burn Injury (20–30 %BSA), Blast Injury (50–140 kPa)
K3	Combined Nuclear Injury— Whole-Body Radiation Injury (3–5 Gy), Burn Injury (10–20 %BSA)
K4	Combined Nuclear Injury— Whole-Body Radiation Injury (5–7 Gy), Burn Injury (1–10 %BSA)
L1	Anthrax Survivor
L2	Anthrax Non-Survivor
M1	Botulism Survivor—Sub-Lethal Dose
M2	Botulism Survivor—Lethal Dose
M3	Botulism Non-Survivor—Lethal Dose
N1	Brucellosis Survivor—Abrupt Onset

Index	CBRN Simulated Patient File
N2	Brucellosis Survivor—Insidious Onset
O1	Ebola Virus Disease Survivor
O2	Ebola Virus Disease Non-Survivor
P1	Eastern Equine Encephalitis Virus Disease Survivor—Encephalitic
Q1	Pneumonic Plague Patient (Outcome Dependent on Treatment)
R1	Q Fever Survivor—Mild
R2	Q Fever Survivor—Moderate
S1	Ricin Intoxication Survivor
S2	Ricin Intoxication Non-Survivor
T1	SARS-CoV-2 Survivor
U1	SEB Intoxication Survivor
U2	SEB Intoxication Non-Survivor
V1	Smallpox Survivor
V2	Smallpox Non-Survivor
W1	T-2 Mycotoxicosis Survivor
W2	T-2 Mycotoxicosis Non-Survivor
X1	Pneumonic Tularaemia Survivor
X2	Pneumonic Tularaemia Non-Survivor
Y1	Venezuelan Equine Encephalitis Virus Disease Survivor—Febrile
Z1	Western Equine Encephalitis Virus Disease Survivor—Febrile

C. Blank Simulated Patient File Template

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER

M **I** **S** **T**	**<c>**	**M** **A** **R** **C** **H** **E**	**A** **M** **P** **L** **E** **C** **R** **E** **S** **S**
	A **B** **C** **D** **E**		

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)			OTHER

List of injuries (or disease findings):

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

EXPECTED OUTCOME OF CASE

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

2. CBRN Simulated Patient Files

A. Nerve Agent Simulated Patient Files

1. Nerve Agent Survivor—Mild

2. Nerve Agent Survivor—Mild with Fragmentation Injury

3. Nerve Agent Survivor—Moderate

4. Nerve Agent Survivor—Moderate with Fragmentation Injury

5. Nerve Agent Survivor—Severe

6. Nerve Agent Survivor—Severe with Fragmentation Injury

7. Nerve Agent Survivor—Very Severe

8. Nerve Agent Survivor—Very Severe with Fragmentation Injury

9. Nerve Agent Non-Survivor—Very Severe

10. Nerve Agent Non-Survivor—Very Severe with Fragmentation Injury

11. Atropine Overdose

12. Opioid Overdose

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A1. Nerve Agent Survivor—Mild)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY		
☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE					
☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT	
ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
45	90	60	15/min	93	Alert	4	5	6	

M		**A**	NKDA
I	Inhalation of gas/smoke	**M**	none
S	sweating, miosis, rhinorrhea	**P**	none
T	<c> M	**L**	breakfast
	A A	**E**	
	B R	**C**	normal
	C C	**R**	normal
	D H	**E**	Miosis
	E E	**S**	Rhinorrhea
		S	Sweating

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

1) Personal protective equipment for all personnel
2) Self-and buddy aid: autoinjector administration, 1 Autoinjector (220 mg obidoxime/2 mg atropine)
3) Decontamination before admission to a medical facility
4) Oxygen administration

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
80	110	90	15/min	95	Alert	4	5	6	

List of injuries (or disease findings):

Upon admission, the cholinergic signs have seized.
Persisting miosis, sweating has stopped
Biological samples are taken and processed accordingly (whole blood).
The point-of-care-diagnostics indicate a normalized AChE activity.
No additional injuries.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1:00H	No further cholinergic signs.
+1D	Che status shows normalized AChE activity, the patient is kept in the hospital for close monitoring and suffers only from slight headaches.
+2D	Specialized analytical laboratories identify the nerve agent. No reoccurence of cholinergic signs. Full recovery.

EXPECTED OUTCOME OF CASE

Full recovery.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Normal AChE activity upon arrival at the hospital (ChE-activity via point-of-care-diagnostics)		

ADDITIONAL COMMENTS including Moulage Information
The first clinical signs, sweating and rhinorrhea, need to be clearly shown. Initial treatment depends only on the cholinergic signs.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A2. Nerve Agent Survivor—Mild with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
150			29/min		Alert	4	5	6	

M			
I	Bilateral below knee amputation.		
S	Severe pain, mild secretions		
T	**<c>** **M** TQ above both knees.		
	A **A** Screaming, mild secretions from nose.		
	B **R** Rapid, shallow.		
	C **C** CRT 4		
	D **H** Alert		
	E **E** -		

A	Unknown
M	Unknown
P	Unknown
L	Unknown
E	
C	Conscious
R	29, shallow
E	Constricted
S	Secretions, nose
S	Pale

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

TQ both legs above knees.
1 fentanyl lozenge/sublingual given.
As far as known no combopens given.
Wearing PPE suit but no gas mask.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	90	64	25/min	93%	Alert	4	5	6	

List of injuries (or disease findings):

Bilateral below knee amputations.
Rhinorrhea.
Miosis.
CRT 4

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:20H	Arrives at medical facility.
+0:23H	No bleeding from legs. Mild rhinorrhea. Begin fluid therapy. SAT 96% without oxygen.

EXPECTED OUTCOME OF CASE

Needs immediate surgery on legs. No need for atropine/oximes since mild symptoms of nerve agent poisoning, needs observation for the next 24 hrs for development of nerve agent symptoms.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Face: pale.
Bilateral below knee amputations.

TQ both legs above knees.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A3. Nerve Agent Survivor—Moderate)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	-	-	20/min	-	Alert	4	5	6	

M		**A**	Unknown
I	Inhalation of gas/smoke.	**M**	Unknown
S	Headache, pain in eyes, runny nose.	**P**	Unknown
T	**<c>** **M** None	**L**	Unknown
	A **A** Clear, chest feels tight.	**E**	
	B **R** Okay, coughing.	**C**	Conscious
	C **C** CRT 2	**R**	Normal
	D **H** Alert.	**E**	Constricted, pain, tunnel vision.
	E **E** -	**S**	Runny nose.
		S	Muscle twitching on left forearm.

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

None.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	120	73	20/min	97%	Alert	4	5	6	

List of injuries (or disease findings):

Secretions from nose.
Cough and chest tightness, headache.
Muscle twitching on left forearm.
Miosis.
CRT 2

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:20H	Arrives at medical facility.
+0:23H	Airway clear. Breathing sufficient. Circulation stable. Moderate symptoms of nerve gas poisioning.

EXPECTED OUTCOME OF CASE

Recovers fast if given atropine/oxime given until clinical improvement of nerve agent poisoning. Must be observed for 24 hrs after clinical improvement.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Secretions from nose.
Cough and chest tightness.
Muscle twitching on left forearm.
Miosis.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A4. Nerve Agent Survivor—Moderate with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	80	40	28/min	90	Unresp	4	2	1	

M			
I	Multiple shrapnel wounds in right arm and leg and right side of face, chemical agent exposure		
S	Unconscious, multiple bleeding wounds		
T	**<c>** **M** Major bleeding from right upper arm		
	A **A** Frothy secretions, airway compromised		
	B **R** Rapid and shallow		
	C **C** a. Rad -, a. car +		
	D **H** Unconscious		
	E **E** Evacuated from hot zone. Body armour still on.		

A	Not known
M	Not known
P	Not known
L	Over 6 h
E	
C	Unconscious
R	Tachypnea
E	Anisocoria
S	Increased
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Two CATs applied on right arm and leg, Nasopharyngeal airway inserted and one NA autoinjector given.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	60	-	30/min	72	Unresp	4	1	1	

List of injuries (or disease findings):

Multiple dirty shrapnel wounds on right side of face, torso, arm and leg, major bleeding stopped, some oozing still. Crepitation on right chest wall. Blunt trauma on right temple under helmet. Nasopharyngeal airway in place, nearly obstructed with secretions, severe distress, breath sounds absent on right, ice cold periphery.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:45H	Cyanotic, agonal breathing, cardiovascular collapse due to hypovolemia and tension pneumothorax. Thoracocentesis is needed asap, otherwise cardiac arrest and CPR with poor outcome.
+0:50H	Saturation low, systolic BP 70, unconscious, copious secretions. Chest tube and intubation (RSI) needed, airway toilet. Two large bore IV-lines, volume replacement and vasopressor therapy. High airway resistance, more atropine (and oxime) needed. A-line and eFAST if available.
+1:00H	Tension hemo-pneumothorax resolved with 600 ml blood in container. Sats up to 90% with mechanical ventilation, moderate PEEP and FiO2 100%. HR 90, BP 90/50 with vasopressors and fluids. Hb 78, pH 7,15, BE -5,0. Consider TXA and RBCs, if available. Central line, Chest X-ray, antibiotic, more atropine
+2:00H	Airway resistance and secretions diminished. Sats 94%, HR 90, ABP 110/70, Hb 75 (no RBCs), pH 7,26, BE -3,5. Pupil anisocoria, right large, left constricted. Urgent CT, if available (traumatic SDH). Neurosurgical consultation and preparations for transfer to Role 3. Sedation and ventilator settings accordingly.
+5:00H	Hemicraniectomy and vascular surgical evaluation of right arm. Debridement of major wounds. Post op ICU. Continuous EEG monitoring.
+3D	Weaning protocol started.

EXPECTED OUTCOME OF CASE

Patient is discharged after two weeks with some sensomotor defects of right hand and fingers, clumsiness of left extremities and minor neurophysiological sequelae.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
		 

ADDITIONAL COMMENTS including Moulage Information

Shrapnel most likely contaminated by NA. How to deal with that during medical management and surgical procedures?

Two CATs applied on right arm and leg, Nasopharyngeal airway inserted

Multiple dirty shrapnel wounds on right side of face, torso, arm and leg.
Major bleeding stopped, some oozing still.
Crepitation on right chest wall.
Blunt trauma on right temple under helmet.
Nasopharyngeal airway in place, nearly obstructed with secretions.
Severe distress.
Ice cold periphery.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A5. Nerve Agent Survivor—Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
30	60	40	5/min	85	Pain	2	3	3	

M		**A**	
I		**M**	
S		**P**	
T	<c> **M**	**L**	
	A **A**	**E**	
	B **R**	**C**	
	C **C**	**R**	Bronchorrhea
	D **H**	**E**	Miosis
	E **E**	**S**	Rhinorrhea, emesis
		S	Sweating

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

1) Personal protective equipment for all personnel
2) Self-and buddy aid: autoinjector administration, 1 AI (220 mg obidoxime/2 mg atropine), 2 AI (each 2 mg of atropine)
3) Decontamination before admission to a medical facility
4) Oxygen administration

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
50	90	60	5/min	87	Pain	2	2	3	

List of injuries (or disease findings):

Upon admission, heart rate and blood pressure have ameliorated, however, respiratory impairment persists.
Bronchoconstriction, bronchorrhea, convulsions.
Immediate intubation and mechanical ventilation are required.
Biological samples are taken and processed accordingly (whole blood).
The ChE point-of-care-diagnostics show a suppressed AChE activity.
The patient suffers from aspiration.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0h	Intubation and mechanical ventilation, further atropine administration and 750 mg/d obidoxime administration via syringe pump, ChE point-of-care-diagnostics show total AChE suppression, the benzodiazepines that are administered for intubation lead to a cessation of convulsions
+2h	Chest x-ray indicates aspiration in the right basal lobe, antibiotics are administered, bronchoscopy is performed.
+1d	The ChE status shows reactivatability of inhibited AChE, and inhibitory activity of the patient´s plasma, obidoxime is continued. Atropine is still necessary to threat cholinergic crisis.
+2d	Persisting inhibitory activity of the patient´s plasma, obidoxime is continued to protect reactivated and newly synthesized AChE. Specialized analytical laboratories identify the nerve agent.
+14d	Discontinuation of obidoxime due to lack of inhibitory activity of the patient´s plasma. Atropine is also discontinued due to the lack of cholinergic signs.
+21d	Extubation and discharge from ICU.

EXPECTED OUTCOME OF CASE

Full recovery after rehabilitation.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Suppressed AChE activity upon arrival at the hospital (ChE point-of -care-diagnostics) The inital ChE status shows reactivatability of inhibited AChE and inhibitory activity of the patient´s plasma	Chest x-ray indicates aspiration pneumonia	

ADDITIONAL COMMENTS including Moulage Information
The first clinical signs, sweating and rhinorrhea, need to be shown clearly. Aspiration should be indicated.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A6. Nerve Agent Survivor—Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
-	-	-	-	-	U	1	1	1	

M		**A**	Unknown
I	Left forearm missing. Heavy secretions.	**M**	Unknown
S	Unconscious	**P**	Unknown
T	**<c>** **M** TQ on left arm.	**L**	Unknown
		E	
	A **A** Secretions.		
	B **R** Erratic. Chest wound left side.	**C**	Unconscious, fitting
		R	Erratic
	C **C** CRT 4	**E**	Constricted
	D **H** Unresponsive	**S**	Secretions, nose and mouth.
	E **E** -	**S**	Pale, blueish.

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

TQ upper left arm.
Chest seal on left axillary side.
Bag valve ventilation.
As far as known no combopens given.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	90	48	-	85%	U	1	1	1	

List of injuries (or disease findings):

Left arm amputation at the elbow
Fragment wound to left axillary line 3rd/4th IC area.
Fitting.
Secretions from nose and mouth.
Miosis.
CRT 4

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:20H	Arrives at medical facility.
+0:23H	No bleeding from arm. Airway not clear. Breathing insufficient. Secretions. Convulsions.
+0:28H	Suction of airways clears much of secretions and mucus. Uneven chest movements, no air exchange on left side when performing auscultation. Still secretions and convulsions.

EXPECTED OUTCOME OF CASE

Recovers if airway is cleared, pneumothorax treated, and atropine/oxime/benzodiazepine given until clinical improvement of nerve agent poisoning.
Needs surgery on arm.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A7. Nerve Agent Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
88	140	80	24/min	84	Verbal	5	4	4	Tremor of upper extremities

M			
I	Chemical agent exposure		
S	Restless, distressed, trembling, frothy secretions		
T	**<c>** **M** None	**A**	None
	A **A** Frothy secretions and saliva	**M**	None
	B **R** Tachypnea, expiratory distress	**P**	Not known
	C **C** Normotensive	**L**	Not known
	D **H** Unable to walk	**E**	
	E **E** Skin intact, sweating	**C**	Agiteted
		R	Tachypnea
		E	Constricted
		S	Increased
		S	Diaphoretic

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Two NA-autoinjectors given at scene by buddy-aid and medic in 5 min interval. Third AI during decontamination.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
48	80	40	8/min	76	Unresp	4	2	2	Vomiting, convulsing

List of injuries (or disease findings):

Airway compromised with secretions, vomit and blood, breathing severely distressed and respiratory drive diminished, HR and BP low, unconscious, extremities twitching, tongue bitten, pupils constricted

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:30H	Signs and symptoms as above: Suction, oxygen mask, IV-line, more atropine+BZP
+0:45H	Rapid sequence intubation (RSI) using videolaryngoscope if available. Preferred anaesthetics ketamine and rocuronium, otherwise expect haemodynamic collapse and need for inotropes/vasopressors, even CPR. Manual ventilation difficult, more atropine needed. Prior aspiration evident. If RSI is not possible or successful (Role 1?), airway management with laryngeal mask. This indicates poor prognosis.
+1:00H	Mechanical ventilation and bronchoscopy with suction and lavation, otherwise oxygen saturation is not improving. Ventilator settings with highest tolerable PEEP and prolonged expiration time. Propofol and norepinephrine infusions. More atropine, consider also atropine infusion and alternative oxime. Arterial line if available. Repeated blood gases. HR 60, BP 85/40. pH 7.18, pO2 6.0, pCO2 7.7
+2:00H	Frequent airway toilet, central line, chest x-ray, urinary catheter. Airway pressure is decreased and secretions diminished, if total dose of atropine is >20 mg. Chest x-ray shows bilateral infiltrates, no complications. Broad spectrum antibiotic needed. HR 80, ABP 90/60. pH 7.22, pO2 6.5, pCO2 7.4.
+6:00H	Persistent ventilatory failure and poor oxygenation. High PEEP and FiO2 still needed. Haemodynamic instability. Volume replacement and vasopressors needed. Anticonvulsive therapy adequate? Consider EEG and HR-CT if available. EEG shows continuous epileptic activity. HR 110-130, ABP 80-100/50-70. pH 7.24, pO2 6.9, pCO2 7.1.
+12:00H	Stable haemodynamics with vasopressors. Ventilator settings still high. Need for atropine diminished. Oxime still continued. Antithrombotic therapy. Transfer to higher echelon (Role 3). HR 100-120, ABP 110/70, pH 7.28, pO2 8.0, pCO2 6.4.
+2D	Haemodynamic stability. Ventilator settings moderate. EEG normalized. Substantial anticonvulsive therapy.
+4D	Starting weaning protocol.

EXPECTED OUTCOME OF CASE

Patient survives the exposure if medical care during the first 60 minutes is successful and aggressive enough (airway management and toilet, dosing of atropine, ventilatory therapy). Neurological and psychological outcome remains uncertain.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Severe, mostly inhalational NA exposure. No conventional trauma.

Airway compromised with secretions, vomit and blood.
Breathing severely distressed and respiratory drive diminished.
Unconscious.
Extremities twitching.
Tongue bitten.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A8. Nerve Agent Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
-	-	-	-	-	Unresp	1	1	1	

M			
I	Left forearm missing. Heavy secretions.		
S	Unconscious		
T	**<c>** **M** TQ on left arm.		
	A **A** Secretions.		
	B **R** Erratic. Chest wound left side.		
	C **C** CRT 4		
	D **H** Unresponsive		
	E **E** -		

A	Unknown
M	Unknown
P	Unknown
L	Unknown
E	Explosion, with gas/smoke development
C	Unconscious, fitting
R	Erratic
E	Constricted
S	Secretions, nose and mouth.
S	Pale, blueish.

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

TQ upper left arm.
Chest seal on left axillary side.
Bag valve ventilation.
As far as known no combopens given.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	90	48	-	85%	Unresp	1	1	1	

List of injuries (or disease findings):

Left arm amputation at the elbow
Fragment wound to left axillary line 3rd/4th IC area.
Fitting.
Secretions from nose and mouth.
Miosis.
CRT 4

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+20min	Arrives at medical facility.
+23min	No bleeding from arm. Airway not clear. Breathing insufficient. Secretions. Convulsions.
+28min	Suction of airways clears much of secretions and mucus. Uneven chest movements, no air exchange on left side when performing auscultation. Still secretions and convulsions.

EXPECTED OUTCOME OF CASE

Recovers if airway is cleared, pneumothorax treated, and atropine/oxime/benzodiazepine given until clinical improvement of nerve agent poisoning.
Needs surgery on arm.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Left arm amputation at the elbow
Fragment wound to left axillary line 3rd/4th IC area.
Fitting.
Secretions from nose and mouth.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A9. Nerve Agent Non-Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	135	70	34/min	99	Alert	6	5	4	Exhausted after running to medics

M

I Suspects exposure to liquid chemical agent

S Very worried, no symptoms so far

T <c> **M** None

A **A** Ok

B **R** Rapid and deep, ordered to undress

C **C** Ok

D **H** None

E **E** None

A Hay, penicillin

M Antihistamine

P Not known

L 6 h

E Walking through bush with liquid agent few minutes ago, no mask or PPEs.

C Fully conscious

R Tachypnea

E Normal

S Normal

S Hot, sweaty

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Undressed and self-decontaminated with RSDL. During that starts to shiver uncontrollably and falls to ground. No medical treatment so far.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
55	95	58	10/min	92	Pain	4	2	2	

List of injuries (or disease findings):

Unconscious, pupils constricted, twitching heavily and starts to convulse and vomit after vitals.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+30min	Deeply unconscious, convulsing subsided. Mouth full of vomit and secretions. Resp 6, agonal pattern, central cyanosis, sats -. HR 34, BP 65/35. Urgent need for airway management and ventilatory support. Aggressive dosing of atropine and first doses of oxime and BZP. Inotrope and vasopressor needed.
+45min	Decontamination inadequate, minor symptoms in medical personnel. Accessory decon needed. Replacement of medical team? Airway secured? If not, cardiac arrest. Manual ventilation difficult, still hypoxic (FiO2 100%). HR 28, BP 60/-
+60min	Decon completed. Atropine dose >>10 mg. HR 20-30, multifocal extrasystolia, a. Car. -, start CPR with epinephrine and more atropine.
+1.25h	a. Car. +, NIBP failed, HR 40-50, multiple ventricular extras, pupils medium sized.
+1.5h	ETT obstructed => tube changed => persistent VF, CPR with several DC shocks.
+1.75h	CPR stopped.

EXPECTED OUTCOME OF CASE

Patient dies due to massive VX exposure contributed by airway problems.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

First impression of worried well and delay of starting adequate medical treatment. Severe dermal exposure to non-volatile NA. Incomplete self-decontamination before arrival at medical facility. Medical personnel contaminated and having minor symtoms. How to proceed? Tactical decision making during medical treatment of T1 patient.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A10. Nerve Agent Non-Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	88	48	28/min	86	Verbal	5	4	4	

M			
I	Several shrapnel wounds in left back thigh and buttock	**A**	None
S	Breathing distressed, unable to stand or walk, in severe pain, restless	**M**	Buventol
T	<c> **M** Heavy bleeding from multiple wounds	**P**	Asthma
		L	2-3 hours
	A **A** Ok; some secretions	**E**	
	B **R** Distressed, increased secretions	**C**	Depressed
	C **C** a. Rad. +	**R**	Increased
	D **H** Unable to use left leg, confused	**E**	Normal
	E **E** Sweaty face, cold and clammy extremities	**S**	Slightly increased
		S	Diaphoretic

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

CAT on left thigh and some dressings on left buttock by buddy-aid. Morphine autoinjector by medic. Hurried to Role 1+ inside the camp.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	70	30	30/min	76	Pain	4	2	2	

List of injuries (or disease findings):

Bleeding from left buttock. Unconscious. Breathing distressed. Secretions on corner of mouth and nostrils. Pupils constricted. Twitching of upper extremities and facial muscles. Defecated. Skin cold and pale. No decontamination.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:20H	Signs and symptoms as above. Hypovolemic shock with NA intoxication. CAT in place. Needs immediate respiratory and circulatory support with secured airway (ETT preferred). Aggressive dosing of atropine with oxime and BZP. Medical team wearing gas masks or respirators.
+0:30H	Intubation difficult due to secretions and anatomy. Severe desaturation and cyanosis. LMA as a secondary choice. Manual ventilation very difficult due to secretions and resistance. Consider surgical airway. HR 50-70, irregular with extras. BP 60/-, Sats ??, vasopressor and more atropine needed
+0:45H	LMA useless, viscous secretions, surgical airway needed. If total dose of atropine > 10 mg, airway resistance slightly decreasing (contributed by epinephrine?), HR 70-90, more extras, BP 80/40. TXA?
+1:00H	If crico ok, still time to play, otherwise myocardial ischemia and persistent VF degenerating to cardiac arrest. A-line? Blood gases: pH 6,9, BE -6,5, pO2 6,0, pCO2 7,2. Hb 68. HR 110, BP 100/70=>dressings soaking. Diffuse bleeding needing surgical intervention. RBCs?, Antibiotic?
+1:30H	Damage control surgery, if available. Fecal contamination. Several shell fragments removed. Heavy bleeding continues. Proper airway toilet difficult. HR 110-130, BP 90/50. pH 7,1, BE -7,0, pO2 7,2, pCO2 6,6. Hb 64. Consider freeze-dried plasma/cryo.
+2:30H	Rapid debridement and packing. Severe coagulopathy and septicemia. HR 140-160, irregular. BP 65/30. pH 6,9, BE -9,0, pO2 7,2, pCO2 6,9. Hb 74 after several units of RBCs. Vasopressors ineffective, consider buffer. Too unstable to be transferred.
+3:30H	Circulatory decline. HR 40-50, VES, BP 30/-. pH 6,7, BE -12,0, pO2 7,7, pCO2 5,0. Hb 80. Epinephrine dosages and CPR.
+3:45H	VF

EXPECTED OUTCOME OF CASE

Patient dies at medical facility to combination of hypovolemic shock due to traumatic bleeding and severe NA intoxication.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Personnel wearing gas masks. Chaotic situation and patient brought to medical facility without decontamination.

Bleeding from left buttock.
Unconscious.
Breathing distressed.
Secretions on corner of mouth and nostrils.
Twitching of upper extremities and facial muscles.
Defecated.
Skin cold and pale.
CAT on left thigh and some dressings on left buttock.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A11. Atropine Overdose)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
165	178	110	28/min	98%	Alert	4	5	6	

M		
I	Nerve agent?	
S	Agitated	
T	**<c>** **M**	None. Wearing Mask.
	A **A**	Clear airway. 3 combopens.
	B **R**	Okay
	C **C**	Okay
	D **H**	Alert, agitated.
	E **E**	-

A	None
M	Unknown
P	Unknown
L	Unknown
E	
C	Conscious, agitated
R	Increased
E	Large pupils
S	Dry
S	Flushed

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Wearing gas mask.
3 combopens given.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
160	180	110	25/min	98%	Alert	4	5	6	

List of injuries (or disease findings):

Agitated. Confused.
Dry, flushed warm skin.
Large pupils.
Temperature 38 degrees celsius

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:20H	Arrives at medical facility. Wearing gas mask.
+0:23H	ABC stable.

EXPECTED OUTCOME OF CASE

No nerve agent exposure. Accidentally took 3 combopens of atropine/oxime which is the cause of the symptoms. Symptomatic treatment of symptoms. Fast recovery.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template A12. Opioid Overdose)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100			25/min		Alert	4	5	6	

M			
I	Open fracture left arm. Explosion. Nerve agent?		
S	Open fracture		
T	**<c>** **M** TQ left arm.		
	A **A** Clear		
	B **R** Okay		
	C **C** CRT 2		
	D **H** Alert		
	E **E** None		

A	Unknown
M	Unknown
P	Unknown
L	Unknown
E	Explosion from unearthed grenade with smoke/gas development.
C	Conscious
R	Fast
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Wearing gas mask.
TQ on left arm.
Opioids given (type and dose not know).

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
67	110	73	8/min	92%	Pain	2	3	1	

List of injuries (or disease findings):

Responsive to pain with groans.
Airway: rattling sound
Eyes: pinpoint pupils
Secretions: normal
Skin: normal
Open fracture left arm, minimal bleeding.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+30min	Arrives at medical facility.
+32min	Consider 2 treatment options: 1) nerve agent poisioning, or 2) opioid intoxication.

EXPECTED OUTCOME OF CASE

This is opioid intoxication which should be deduced from the the progression of the clinical signs, opioid use and toxidrome.
Treat with naloxone till effect on consciousness, airway and breathing.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Responsive to pain with groans.
Airway: rattling sound
Eyes: pinpoint pupils
Secretions: normal
Skin: normal
Open fracture left arm, minimal bleeding.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

B. Distilled Sulfur Mustard (HD) Simulated Patient Files

1. HD Survivor—Mild Percutaneous Injury

2. HD Survivor—Mild Inhalation Injury, Mild Ocular Injury

3. HD Survivor—Moderate Ocular Injury, Mild Percutaneous Injury

4. HD Survivor—Mild Inhalation Injury, Severe Ocular Injury, Mild Percutaneous Injury, Fragmentation Injury

5. HD Survivor—Severe Inhalation Injury, Severe Ocular Injury, Severe Percutaneous Injury

6. HD Survivor—Severe Inhalation Injury, Severe Ocular Injury, Severe Percutaneous Injury, Fragmentation Injury

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template B1. HD Survivor—Mild Percutaneous Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	120	80	12	98	15				Erythema,eye pain

M		**A**	
I		**M**	
S		**P**	
T <c>	**M**	**L**	
A	**A**	**E**	
B	**R**		
C	**C**	**C**	
D	**H**	**R**	
E	**E**	**E**	
		S	
		S	

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

1) Personal protective equipment for all personnel
2) Decontamination

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	120	80	12	98	15				Erythema,eye pain, blepharospasm

List of injuries (or disease findings):

Erythema at the exposed area
Blepharospasm, application of mydriatics necessary

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+ 1 d	Blistering at the exposed areas (small), analgesia required
+ 2 d	Early de-roofing under aseptic conditions due to the risk of trauma to blisters. Specialized analytical laboratories identify the agent.
+ 8 d	Ocular reconvalescence
+ 15 d	Reconvalescence of dermal blisters, discharge to a rehabilitation facility

EXPECTED OUTCOME OF CASE

Full recovery after rehabilitation.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

The initial erythema should be clearly visible. The blisters (small size) appear after 1d.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template B2. HD Survivor—Mild Inhalation Injury, Mild Ocular Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	135	85	18	98	A	4	5	6	

M	
I	Eye erythema
S	Hoarse voice
T <c> **M**	None
A **A**	Normal
B **R**	Normal
C **C**	Normal
D **H**	Normal
E **E**	Possible mustard exposure

A	NKDA
M	None
P	None
L	Breakfast
E	
C	Normal
R	Normal pupils, red eyes
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

No first aid given.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
82	126	78	19	99	A	4	5	6	

List of injuries (or disease findings):

*Mild early mustard effects to eyes
*Mild hoarseness due to exposure

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1:00H	Decontaminated, treatment of ocular symptoms, treatment of hoarseness
+3:00H to 6:00H	Potentially discharged with follow-up

EXPECTED OUTCOME OF CASE

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Normal if asked	Normal if asked	

ADDITIONAL COMMENTS including Moulage Information
red eyes

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template B3. HD Survivor—Moderate Ocular Injury, Mild Percutaneous Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	120	80	12/min	98	Alert	4	5	6	

M

I		None
S		eye pain, itchiness on hands and face, blisters on hands and face
T	**<c>** **M**	N/A
	A **A**	open
	B **R**	Normal
	C **C**	Normal
	D **H**	Normal
	E **E**	skin lessions

A	NKDA
M	none
P	none
L	morning breakfast
E	
C	normal
R	normal
E	Eye pain
S	none
S	Erythema

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

1) Personal protective equipment for all personnel
2) Decontamination

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	120	80	12/min	98	Alert	4	5	6	

List of injuries (or disease findings):

Erythema at the exposed area
Eye pain
Blepharospasm, application of mydriatics necessary

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1D	Blistering at the exposed areas (small), analgesia required
+2D	Early de-roofing under aseptic conditions due to the risk of trauma to blisters. Specialized analytical laboratories identify the agent.
+8D	Ocular reconvalescence
+15D	Reconvalescence of dermal blisters, discharge to a rehabilitation facility

EXPECTED OUTCOME OF CASE

Full recovery after rehabilitation.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Blisters (small size) should be visible on hands and face.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template B4. HD Survivor—Mild Inhalation Injury, Severe Ocular Injury, Mild Percutaneous Injury, Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
96	126	78	20	96	A	4	5	6	

M		**A**	NKDA
I	Fragmentation injury near R femoral artery	**M**	None
S	RLE pain	**P**	None
T	<c> **M** Possible near R femoral	**L**	Breakfast
	A **A** Open	**E**	
	B **R** RR20	**C**	Pain
	C **C** WNL	**R**	Rate 20
	D **H** Normal temp	**E**	Pupils 4mm
	E **E** Possible Mustard exposure	**S**	Normal
		S	Pale

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Immediate decontamination
Pressure dressing to right thigh (possible tourniquet)
Decontamination for persistent blister agent

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
98	119	82	20	97	A	4	5	6	

List of injuries (or disease findings):

* Fragmentation injury to right lower limb
* Large fragmentation injury close to R femoral artery

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1:00H	Control bleeding from fragmentation injury
+3:00H	Develops red/swollen eyelids, moderate ocular pain and multiple red skin lesions/blisters.
+12:00H	Develops runny nose, sneezing, hoarse voice, cough

EXPECTED OUTCOME OF CASE

Patient has potential cat heam to right thigh. Can be managed by pressure dressing. This is a challenge for wound decontamination due to risk of re-bleeding. Gross contamination requiring decontamination.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Routine bloods normal pH 7.38 pCO2 5.02 pO2 36.6 on O2 (or 14 in air) BC 23 BXS -1.5 Lactate 2.8	CXR Normal PXR Normal FAST - Normal XR lower limb multiple frag wounds one FB close to femoral artery Femoral angiography shows artery is intact	

ADDITIONAL COMMENTS including Moulage Information
Fragmentation injury to right lower limb Large fragmentation injury close to R femoral artery

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template B5. HD Survivor—Severe Inhalation Injury, Severe Ocular Injury, Severe Percutaneous Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
70	128	76	16	100	A	4	5	6	

M		
I	Suspected intoxicaton	
S	grit on eyes, feeling sick	
T	**<c>** **M**	- / no mask
	A **A**	Ok
	B **R**	Ok / self decon of face with bottled water
	C **C**	Ok
	D **H**	-
	E **E**	Not exposed

A	None
M	None
P	NTR
L	> 8 H
E	
C	Normal
R	Ok, self decon of face
E	Minor redness on both sclera
S	Normal
S	Dry

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Suspected chemical agent exposure. Undressed and decontaminated thoroughly. No medical treatment.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
55	110	70	20	99	A	3	5	6	

List of injuries (or disease findings):

Photophopia and pain on both eyes. Obvious conjunctivitis. Nauseous and vomits a few times. Some redness and itching on forehead, cheeks, neck and palms.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+ 2:00H	Severe pain on eyes, swelling of eyelids, redness and dermal swelling of face and neck, hoarse voice. HR 80, BP 150/85, resp 24, sats 99, GCS 14. Iv-line and some cristalloid, pain management with NSAID and/or opioid, consider antiemetics.
+ 4:00H	Still some eye pain, headache and fatique. Major swelling of eyelids, plepharospasm. Epistaxis and hacking cough. Burning sensation of neck and palms, redness of forearms, elbows and armpits. HR 74, BP 130/65, resp 28, sats 99, GCS 14. Cont. analgesics, consider TXA, sterile dressings/burn bandages
+ 8:00H	Severe oedema of eyelids, corneal damage and loss of sight. Cough with bloody sputum, sore throat, loss of voice. Mild blistering of forehead and neck, spreading redness in both arms, armpits and groin. HR 90, BP 140/86, resp 30, sats 97, CGS 14. Oxygen, analgesia, more dressings, antibacterial ointment, antibiotic eyedrops.
+ 12:00H	Increasing shortness of breath, bloodstained productive cough, inspiratory wheeze, abundant blistering on face and neck, some blistering on arms, armpits and groin. HR 100, BP 110/55, resp 34, sats 94 w. O2, GCS 13. Airway management and mechanical ventilation, circulatory support. Antibiotic. Transfer to Role 3?
+ 1D	Airway secured with ETT, frequent airway toilet, CXR: bilateral oedema; high PEEP and FiO2. Sedation, circulatory support, ABP and CVP. Antibiotic cont., antitrombotics?
+ 2D	Severe pulmonary oedema; intermittent prone positioning, sudden increase in airway pressure and desaturation due to bronchial obstruction by pseudomembrane; emergency bronchoscopy.
+ 4D	Some improvement in oxygenation. Sudden metabolic acidosis, lactatemia and oligouria, S-CK and S-myogl. high, capillary refill delayed in both hands; immediate escharotomy of both forearms.
+ 6D	Significant leucopenia, fever and increased CRP; microbial cultures (blood, urine, bronchi), replace vascular catheters, broad-spectrum antibiotic, consider antifungal.

EXPECTED OUTCOME OF CASE

Patient survives. One year after: Some residual scarring of right cornea, visual aquity o.dx. diminished. Bronchiectasia and stricture of trachea needing frequent dilatations.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template B6. HD Survivor—Severe Inhalation Injury, Severe Ocular Injury, Severe Percutaneous Injury, Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
108	172	110	20/min	97	Verbal	3	4	5	

M		
I	Several bleeding, lacerations on right side of body (face, arm, torso and leg), dislocated right shoulder	
S	Disoriented, painful, nauseous	
T	**<c>** **M**	No mask
	A **A**	Normal
	B **R**	Normal
	C **C**	Hypertensive due to pain
	D **H**	None
	E **E**	Exposed to mustard gas

A	None
M	None
P	Healthy
L	2 hours
E	
C	Depressed
R	Slightly increased
E	Dilated
S	Normal
S	Diaphoretic

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

After removal from area of suspected contaminated, undressed and "decontaminated" with water before dressing the wounds.
During the transport medic puts on an iv-line with some cristalloid and gives one dose of fentanyl after which the patient vomits.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	110	70	28/min	92	Verbal	3	4	5	

List of injuries (or disease findings):

Arrival at MTF 90 min after the incident. Decontamination with soap and water. Multiple wounds and lacerations by shrapnel and glass over the right side of face, neck, arm, torso and leg. Body armour and helmet have given some protection. Right shoulder dislocated and very painful. Right eardrum perforated. Conjunctivitis, eyelids swollen. Redness of face, neck and chest. Nauseous and coughing.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2:00H	Coughing and nose bleed. HR 104, BP 116/74, Resp 30, Sats 94 with O2. Photophobia and severe eyepain. Oedema of face and neck. Multiple contaminated shrapnels in wounds. Urgent debridement and airway protocol needed. Pain management?, antiemetics?, TXA?, antibiotics?
+4:00H	Airway secured and patient sent to Role 2 (if not already there). HR 100, BP 112/68, ventilated, Sats 96, sedated. Hb 98,
+8:00H	Debridement done and facial wounds sutured. Chest X-ray shows bilateral inflitrates and anterior shoulder dislocation. Major swelling of face and neck. Some blisters. HR 108, BP 96/68, Sats 90, Temp 38,4 C. Hb 82, Leuc 10.2, Trom 124, pH 7.24, Lact 2.6
+12:00H	Severe aspiration pneumonia and advancing pulmonary oedema. Haemodynamic instability. HR 120, BP 90/60 (with fluids and vasopressors), Sats 86 (FiO2 100%). Large bullae on neck, blisters on face, chest, armpits and arms. Role 3/ICU needed.
+1D	Lung protective ventilation with high PEEP, circulatory support (invasive haemodynamic monitoring), frequent diagnostic bronchoscopy, HR 110-130, MAP 50-60, CVP 14-18, Sats 82-88, pH 7.3, pO2 6.7, pCO2 7.2, Lact 3.6, Hb 78, Leuc 14.2, Trom 98, CRP 260, HR-CT: consolitated parenchyma and large effusions l.a.
+2D	Intensive care cont. Consultation of ophthalmologist, pulmologist and plastic surgeon. Consider tracheostomy and prone positioning. 24% BSA damaged. Need for redo debridement?

EXPECTED OUTCOME OF CASE

Weaned on day 18. Transferred to pulmonary ward on day 25. Discharged on day 48. Skin lesions not completely healed yet. Suffering from COPD-like symptoms. Lung capacity diminished and exercise tolerance poor. Visual acuity normal.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Routine labs normal		 

ADDITIONAL COMMENTS including Moulage Information
Multiple wounds and lacerations by shrapnel and glass over the right side of face, neck, arm, torso and leg. Right shoulder dislocated and very painful. Right eardrum perforated. Conjunctivitis, eyelids swollen. Redness of face, neck and chest. Nauseous and coughing.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

C. Phosgene (CG) Simulated Patient Files

1. Phosgene Survivor—Severe

2. Phosgene Survivor—Severe with Fragmentation Injury

3. Phosgene Survivor—Very Severe

4. Phosgene Survivor—Very Severe with Fragmentation Injury

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template C1. Phosgene Survivor—Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	142	76	24/min	100	Alert	4	6	5	

M		
I		Exposed to gaseous chemical agent
S		Non-symptomatic
T	**<c> M**	No mask
	A A	Normal
	B R	Normal
	C C	Normal
	D H	-
	E E	Chemical agent

A	None
M	Antihypertensive drug
P	High blood pressure
L	> 6 h
E	Evacuated patients from chemical attack
C	Normal
R	Increased
E	Normal
S	Normal
S	Sweaty

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

No need for first aid.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
84	136	82	16/min	99	Alert	4	6	5	GAEB

List of injuries (or disease findings):

No external injuries. Some cough.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2:00hr	Some discomfort and coughing time to time. HR 66, BP 144/84, Resp 16, Sats 99. IV-line. Observation.
+4:00hr	Minor distress. Seeking for sitting position. HR 80, BP 140/90, Resp 28, Sats 94. Auscultation nil. Oxygen mask.
+6:00hr	Distress and discomfort cont. Productive cough. Oxygen helping. HR 76, BP 130/82, Resp 24, Sats 92-96. Consider to transfer to Role 3.
+8:00hr	Restless and distressed. Unmasking. HR 90, BP 114/78, Resp 30, Sats 88. Sedation and CPAP if available. Prepare to intubation and mechanical ventilation.
+12:00hr	Intubated and ventilated. High PEEP (12-18), low VT (6-8ml/kg), FiO2 0.6-0.8, CXR: bilateral infiltrates, pO2 8.0, pCO2 7.2, pH 7.3, MAP 50-60, CVP 14-18, fluid replacement and vasopressor,
+1d	HR-CT: dense consolidations, pleural effusions. pO2 8.4, pCO2 7.1, pH 7.32, Hb 156, Leuc 10.2, CRP 50. Antibiotic prophylaxis?, Antitrombotic medication?
+2d	pO2 8.2, pCO2 6.9, pH 7.31, PEEP 12, FiO2 0.6, MAP 60-65, CVP 12-14

EXPECTED OUTCOME OF CASE

Weaned and extubated on day 4. CPAP 10 cmH2O on days 4-6. Resolution of consolidations by day 6. Supplemental O2 stopped on day 8. Transferred to pulmonary ward on day 9. Pulmonary function tests show minor restriction. Back to duty after one month.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template C2. Phosgene Survivor—Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	135	70	28/min	98	Alert	4	5	6	

M			
I	Shrapnel wounds in left arm and thigh, bleeding from left ear, possible intoxication		
S	Painful, bleeding from large wounds in l. arm and thigh, oozing from l. ear		
T	**<c>**	**M**	Major bleeding from left thigh
	A	**A**	Ok
	B	**R**	Increased
	C	**C**	a. Radialis +/+
	D	**H**	Unable to walk
	E	**E**	Exposed to chemical agent, evacuated to CCP

A	None
M	None
P	NTR
L	> 8 hours
E	Mortar shell exploded 40 feet to the left while on foot patrol. Tripped over. Started self aid under dense gaseous cloud.
C	Conscious
R	Respirations increased, no decon
E	Normal
S	Normal
S	Diaphoretic

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Self applied CAT on left thigh. Medic arrived 10 min after the incident and put on gas mask for the patient and another CAT over left arm. At Casualty Collection Point patient was undressed, hair flushed and CATs replaced for new ones. Fentanyl lollipop for pain management. From CCP patient was evacuated to Role 1.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
140	110	60	30/min	96	Alert	4	5	6	Time of arrival appr. 60 min

List of injuries (or disease findings):

Large ragged wound on left mid-thigh. Lacerated femoral artery. No active bleeding (CAT). Penetrating wound on left arm. No arterial bleeding after releasing CAT. Wound flushed and packed before surgery. Left eardrum perforated. Exposed to phosgene (chem detector).

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1:00hr	List of injuries as above. O2-mask, iv-lines, TXA, antibiotic, FFP. eFAST neg., Hb 90, pH 7.24, BE -3.5. Pain management continued (oxycodone/morphine). Evacuation to Role 2 for DCS.
+3:00hr	At Role 2; DCS: Debridement of both shrapnel wounds, vascular shunt of left femoral artery, fasciotomy. Intubated, Sats 98% (FiO2 100%), HR 124, BP 100/55, CXR normal
+5:00hr	Left intubated under sedation. Sats 94% (FiO2 50%, PEEP 5 cmH2O), pO2 9.5, pCO2 4.8, pH 7.30, BE -2.0, Hb 78. HR 120, BP 118/62, Two units of whole blood.
+8:00hr	Sats 90% (FiO2 80%, PEEP 10), pO2 7.5, pCO2 5.6, pH 7.28, BE -1.5, HR 125, BP 110/64, left leg cold, no pulse on foot. Prepare to evacuate to Role 3 for vascular surgery and intensive care.
+12:00hr	At Role 3; Second look operation by vascular surgeon. Bypass with vein graft. Sats 80% (FiO2 100%, PEEP 12), pO2 6.0, pCO2 6.5, pH 7.16, BE -4.0, HR 130, ABR 120/75 (norepinephrine), Hb 90, leuc 12.0, Trom 90, Myogl 1200 ug/l, Krea 120 umol/l, CRP 140. HR-CT: large consolidated areas and pleural effusions on both lungs
+1d	Lung protective ventilation with high PEEP needed, FiO2 80 %. Sats 88%, pO2 7.2, pCO2 6.0, pH 7.34, BE 0.2. Forced alkaline diuresis. HR 90, ABP 116/78 (norepinephrine infusion), wide spectrum antibiotic, antitrombotic medication/LMWH
+2d	HR-CT: consolidations unchanged, pleural fluid on right side. Consider pleurocentesis/chest tube. Sats 90%, pO2 7.3, pCO2 6.4, pH 7.38, BE 1.0, ABP 110/72, Hb 94, Myogl 600, Krea 128, CRP 120. Left leg warm
+5d	HR-CT: consolidations diminished, pleural fluid drained, Sats 94%, pO2 7.8, pCO2 5.8, pH 7.36, BE 2.0, Myogl <100, Krea 90, CRP 60. Consider suturing of fasciotomies. Forced alkaline diuresis discontinued.

EXPECTED OUTCOME OF CASE

Fasciotomies sutured at Day 6. Patient extubated at Day 9, respiratory physiotherapy started. To surgical ward at Day 12. Pulmonary function tests below normal. Discharged at Day 20. Physiotherapy continued. Exempt from active duty.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
		

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template C3. Phosgene Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	140	70	22/min	99	Alert	4	5	6	Conjunctiva reddish

M			
I	Intoxication		
S	Severe irritation of eyes and airways		
T	**<c>** **M** No mask		
	A **A** Airway ok, NA autoinjector		
	B **R** Increased		
	C **C** a. Radialis +/+		
	D **H** -		
	E **E** Exposed to gaseous agent		

A	None
M	None
P	Healthy
L	6 hours
E	During a S&D mission ending up into a deposit filled with dense gas
C	Conscious
R	Self decon with RSDL pad
E	Dilated
S	Dry
S	Dry

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

NA-autoinjector (atropine and oxime) as self aid. No other medication. Stripped naked and flushed with water before entering into medical facility.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
104	135	65	20/min	99	Alert	4	5	6	Eyes reddish and pupils dilated

List of injuries (or disease findings):

No injuries. Complains of visual impairment, dizziness and dry mouth.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2:00hr	HR 90, NIBP 130/60, Resp 16, Sats 100, Temp 101 F. Pupils still dilated and mouth dry. Dizziness subsided. No signs of NA exposure. Iv-line and cooling.
+4:00hr	HR 80, NIBP 120/70, Resp 20, Sats 94, Temp 99.5. Increasing distress and dry cough. O2-mask, consider evacuation to Role 2.
+8:00hr	HR 110, NIBP 118/56, Resp 30, Sats 88 (O2-mask), Temp 99. Severe distress and continuous productive cough. Restless and anguished. Prepare to RSI. Sudden collapse and short CPR.
+10:00hr	Intubated and ventilated by field ventilator. HR 98, NIBP 86/40, Sats 90 (FiO2 100%, PEEP 5), CXR: bilateral opacities. Emergency evacuation to Role 3.
+14:00hr	Role 3/ICU: 'Maximal' ventilator settings; Sats 76-88, pO2 5.6, pCO2 6.4, pH 7.28, BE 2.0, HR 80-100, MAP 55-65 (norepinephrine infusion), Hb 148, Leuc 12.2, Trom 110, CRP 40, S-Krea 120 umol/l, S-Bil 24 umol/l
+1d	HR-CT: alveolar oedema and interstitial inflammation l.a., ECHO: EF 60%, mild MI. pO2 5.8, pCO2 6.6, pH 7.30, BE 1.5
+2d	pO2 6.0, pCO2 6.8, pH 7.26, BE 3.5, Hb 152, Leuc 16.2, Trom 88, CRP 78, S-Krea 144, S-Bil 29. Antibiotic started. Lung recruitment maneuvers needed. Consider prone positioning.
+4d	HR-CT: more pronounced oedema. In prone position: pO2 6.6, pCO2 6.7, pH 7.31, BE 3.3. Hb 138, Leuc 18.1, Trom 85, CRP 112, S-Krea 151, S-Bil 33.

EXPECTED OUTCOME OF CASE

Deterioration on Day 6. MOF. Evacuated to Role 4. Considered ECMO therapy, but because of MOF declined. Short renal replacement therapy during Days 7 to 12. Change for the better on Day 12. Transferred from intensive care to ward on Day 20. In the ward, treatment and rehabilitation continued for three weeks. After six months almost complete recovery.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template C4. Phosgene Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	110	56	24/min	96	Pain	2	2	5	Coughing heavily

M		
I	Bleeding wounds on the right side of neck and right shoulder. Burns to the face. Smoke inhalation	
S	Unconscious, coughing	
T	**<c>** **M**	No mask
	A **A**	Ok
	B **R**	Ok
	C **C**	a. Radialis +/+
	D **H**	Unconscious
	E **E**	Exposed to combustion gases, burns to the face

A	Not known
M	Not known
P	Not known
L	Not known
E	RPG strike on an armored vehicle which crashed to its side and caught fire. Patient inside.
C	Depressed consciousness
R	Increased
E	Closed
S	-
S	Dry

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Patient rescued from the vehicle. Medic tied the wounds on neck and shoulder and set NPA.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
80	100	50	28/min	90	Pain	1	3	5	

List of injuries (or disease findings):

Deep wound on the right side of neck, superficial wound on right shoulder, burns to the face (forehead and both cheeks), eyelids swollen, some secretions, coughing.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1:00hr	Increasing shortness of breath. Both wheezing and stridor. Coughing heavily. Sats 86 with O2-mask. Resp 30. Facial swelling increased. Neck wound oozing through dressings. HR 96, BP 90/46. Consider RSI and wound debridement (Role 2?).
+2:00hr	Patient intubated and respiratory support initiated in sedation. FiO2 100%, PEEP 5. Sats 92. Fluid management and TXA. Antibiotic. HR 88, NIBP 80/40. Consider vasopressor and FDP. Burn dressings on the face. Evacuate to Role 2/3 (preferred)
+4:00hr	Role 2: Debridement of neck wound. HR 110, NIBP 100/60 (2 FDPs and vasopressor), Sats 88, FiO2 100%, pO2 6.8, pCO2 6.2, pH 7.28, BE -2.0, Hb 98. CXR bilateral opacities. Suspicion on phosgene/PFIP exposure.
+8:00hr	Sats 80-85, copious secretions, FiO2 100%, PEEP 5, pO2 6.3, pCO2 5.8, pH 7.24, BE -1.5, HR 100, NIBP 96/56. Field respirator unsuitable for this patient. Consider evacuation to Role 3/ICU.
+12:00hr	Role 3/ICU: Lung protecting ventilation. Invasive haemodymic monitoring. Bronchoscopy: aqueous secretions, mild inflammation of mucous membranes, samples taken. PEEP 8-12, FIO2 80%, pO2 6.2, pCO2 6.4, pH 7.22, BE -1.0, MAP 55-65, HR 90-110 (norepinephrine infusion).
+1d	HR-CT: bilateral basal infiltrates and opacities, small pneumothx on right apex. pO2 5.8, pCO2 6.5, pH 7.20, BE 2.0, Hb 88, Trom 130, CRP 130. ICD on right side. Broad spectrum antibiotic. Ophthalmologist and plastic surgeon are consulted.
+2d	pO2 5.6, pCO2 6.6, pH 7.24, BE 3.0, CRP 145. MAP 60-70, CVP 14-18, PCWP 10-14. ECHO: moderate tricuspic regurgitation, EF 45%. Revision of the neck wound in the operating room. Consider prone positioning and systemic corticosteroid treatment back in the ICU.
+4d	HR-CT: opacities densified, pneumothx diminished. pO2 6.0, pCO2 6.4, pH 7.30, BE 4.0, CRP 112, Hb 82, Trom 110. Prone positioning in12 h intervals. Consider surgical airway.

EXPECTED OUTCOME OF CASE

Without early ICU treatment and sophisticated pulmonary care outcome is very poor.
After one week transfer to Role 4 for further treatment. Septic episode on days 9 to 12. Resolution with antifungal treatment and replacing all the catheters. Decanylation on day 18. In the pulmonary ward days 20 to 38. Lung function tests below normal six months after the event.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Fresh burn marks on forehead and both cheeks. Carbon residues around the mouth and oral mucosa. Deep bleeding wound on the right side of neck. Smaller wound on right shoulder. Swollen eyelids. NPA in place.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

D. Chlorine (Cl_2) Simulated Patient Files

1. **Chlorine Survivor—Mild**
2. **Chlorine Survivor—Mild with Fragmentation Injury**
3. **Chlorine Survivor—Moderate**
4. **Chlorine Survivor—Moderate with Fragmentation Injury**
5. **Chlorine Survivor—Severe**
6. **Chlorine Survivor—Severe with Fragmentation Injury**
7. **Chlorine Survivor—Very Severe**
8. **Chlorine Survivor—Very Severe with Fragmentation Injury**
9. **Chlorine Non-Survivor—Very Severe**
10. **Chlorine Non-Survivor—Very Severe with Fragmentation Injury**

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D1. Chlorine Survivor—Mild)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	125	78	19	99%	A	4	5	6	

M		**A**	NKDA
I	None	**M**	None
S	Eye/throat/nose irritation	**P**	None
T	<c> **M** N/A	**L**	breakfast
	A **A** open	**E**	
	B **R** normal	**C**	Normal
	C **C** normal	**R**	Normal
	D **H** none	**E**	Red conjunctiva/sclera
	E **E** N/A	**S**	Normal
		S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Patient presented at R1, see below.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
105	125	78	18	99%	A	4	5	6	

List of injuries (or disease findings):

Erythematous conjunctiva/sclera
Pharyngeal erythema
Rhinorrhea

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1:00H	Patient eyes improved after flushing eyes with large amounts of tepid water or saline for 15 minutes
+3:00H	Patient discharged with 24 hour follow-up

EXPECTED OUTCOME OF CASE

Full recovery.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Normal basic labs	Normal CXR	

ADDITIONAL COMMENTS including Moulage Information
NO IPE

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D2. Chlorine Survivor—Mild with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110			20/min		Alert	4	5	6	

M			
I	Gun shot wound and smoke exposure.		
S	Coughing. Pain left hand.		
T	**<c>** **M** TQ applied to left hand. Fentanyl lozenge/sublingual, gas mask.		
	A **A** Clear		
	B **R** Okay, coughing		
	C **C** CRT 1		
	D **H** None		
	E **E** None		

A	None
M	None
P	Healthy
L	Not known
E	White-yellow smoke from local tank truck, smelled like swimming pool. Gun shots fired.
C	Alert
R	20, light coughing.
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Wearing a gas mask.
TQ applied to upper left arm.
1 fentanyl lozenge/sublingual given.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	120	75	20/min	96	Alert	4	5	6	

List of injuries (or disease findings):

Alert and oriented.
Light bleeding from left hand.
Light coughing.
Chest auscultation: normal.
CRT 2

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5min	1 fentanyl lollipop given by medic and TQ applied.
+30min	Arrives medical facility.
+40min	Haemorrhage from hand under control, but needs surgery on hand. Respiration normal.

EXPECTED OUTCOME OF CASE

Fast recovery, need for rehabilitation after gunshot wound to hand.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Standard bloodwork: normal Arterial blood gas: normal.	Normal chest x-ray	

ADDITIONAL COMMENTS including Moulage Information
Bleeding from left hand, TQ on left upper arm.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D3. Chlorine Survivor—Moderate)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
125			30/min		Alert	4	5	6	

M

I Smoke inhalation.

S Coughing. Breathing is hard.

T <c> **M** None

A **A** Clear

B **R** Labored, coughing

C **C** CRT 1

D **H** None

E **E** None

A	None
M	None
P	Healthy
L	Not known
E	White-yellow smoke from local tank truck, smelled like swimming pool.
C	Alert
R	30, coughing, difficulty breathing.
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Wearing a gas mask (but not properly fitted).

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
125	140	75	35/min	90	Alert	4	5	6	

List of injuries (or disease findings):

Alert and oriented.
Coughing, breathing is difficult.
Chest auscultation: wheezing and crackles.
CRT 2

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+30min	Arrives medical facility.
+32min	Gas mask is removed. Still breathing difficulty. Administration of high-flow oxygen 10-15 liters/min.
+35min	Still labored breathing, administration of bronchodilators.
+55min	Less respiratory wheezing and crackles, SAT 93%. Administration of more bronchodilators.
+80min	SAT 96%, no more crackles, very slight wheezing. Observation and monitoring.

EXPECTED OUTCOME OF CASE

Full recovery.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Standard bloodwork: normal Arterial blood gas: pO2 and pCO2 a little below normal.	Normal chest x-ray	

ADDITIONAL COMMENTS including Moulage Information
Face: pale, cyanotic lips.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D4. Chlorine Survivor—Moderate with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130			35/min		Verbal	4	4	5	

M

I			Gun shot. Smoke exposure.
S			Bleeding from hand. Coughing. Breathing is hard.
T	**<c>**	**M**	Bleeding left hand. TQ upper left arm. Fentanyl lozenge. Mask.
	A	**A**	Clear
	B	**R**	Labored, coughing
	C	**C**	CRT 4
	D	**H**	None
	E	**E**	None

A	None
M	None
P	Healthy
L	2 hrs ago
E	White-yellow smoke from local tank truck, smelled like swimming pool. Gun shots fired.
C	Verbal
R	35, coughing, difficulty breathing.
E	Normal
S	Normal
S	Pale, sweaty.

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Wearing a gas mask.
TQ upper left arm.
1 fentanyl lozenge/sublingual given.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	90	50	35/min	90	Verbal	4	4	5	

List of injuries (or disease findings):

Alert and oriented, but in pain.
Heavy bleeding from left hand, 3 digits missing.
Coughing, breathing is difficult.
Chest auscultation: wheezing and crackles.
Skin: pale and sweaty.
CRT 5

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+30min	Arrives medical facility.
+32min	Gas mask is removed. Still breathing difficulty. Administration of high-flow oxygen 10-15 liters/min. Examination finds TQ on upper left arm too loose, and is tightened. IV/IO access, fluid therapy.
+35min	Still labored breathing, administration of bronchodilators. Bleeding from hand lessened, but NIBP 80/40. Full body examination reveals gun shot wound to abdomen with a little bleeding, and no exit wound.
+40min	Prepare patient for damage control surgery, and monitor airways.

EXPECTED OUTCOME OF CASE

Full recovery.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Standard bloodwork: normal Arterial blood gas: pO2 below normal. Lactate and pCO2 evalated. pH 7,32.	Normal chest x-ray	

ADDITIONAL COMMENTS including Moulage Information

Face: pale, cyanotic lips.
Bleeding from left hand and 3 digits missing, TQ on left upper arm, which is too loosely applied.
Gunshot wound to left side of abdomen, small entrance wound, no exit wound. Little bleeding and small hole in uniform.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D5. Chlorine Survivor—Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
115			40-50/min		Pain	2	4	2	

M			
I	Smoke exposure.		
S	Breathing problem		
T	**<c>** **M**	None. No mask.	
	A **A**	Critical, foaming.	
	B **R**	Critical, RR 45, shallow.	
	C **C**	CRT 2	
	D **H**	None	
	E **E**	None	

A	Not known
M	Not known
P	Not known
L	Not known
E	White-yellow smoke from local tank truck, smelled like swimming pool.
C	Depressed
R	40-50, shallow breathing.
E	Normal
S	White foam, with reddish tint.
S	Cyanotic

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Not wearing a gas mask.
Bag Valve Mask ventilation.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
115	100	70	45/min	85	Pain	2	4	2	

List of injuries (or disease findings):

Responsive to pain.
Cyanotic skin.
Chest auscultation: significant bilateral rales and crackles.
CRT 2

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+45min	Arrives medical facility.
+47min	Need for suction, administration of oxygen 15 liters/min to keep sat O2 > 88%. Need for bronchodilators.
+52min	Airway still critical, shallow breathing more pronounced. Arterial blood gas PaO2 8,2 kPa (15 L oxygen/min) and PaCO2 9,2 kPa. Intubation necessary.

EXPECTED OUTCOME OF CASE

Partial recovery within weeks but with reduced lung function..

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Arterial blood gas: pO2 below normal. Lactate and pCO2 elevated. pH 7.25.	Chest x-ray: bilateral opacities.	

ADDITIONAL COMMENTS including Moulage Information
Face: pale, cyanotic lips.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D6. Chlorine Survivor—Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110			34	89	Verbal	3	4	6	

M		**A**	NKDA
I	Frag injury to abdomen, chest and arms	**M**	None
S	Shortness of breath, minor bleeding from fragmentation wounds	**P**	Unknown
T	<c> **M** No catastrophic hemorrhage	**L**	8 hours pre-injury
	A **A** No airway issues	**E**	Blast and frag injuries, not wearing respirator at the time
	B **R** Cough, raised RR, increased work of breathing	**C**	Responds to voice
	C **C** Tachycardic, radial pulse present	**R**	Raised RR, increased work of breathing, cough and chest pain
	D **H** Responds to voice, PERL	**E**	Red conjunctiva
	E **E** None	**S**	Normal
		S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Respirator applied.
Wounds dressed (no catastrophic hemorrhage)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	90	40	36/min	85%	Verbal	3	4	6	Respiratory Distress

List of injuries (or disease findings):

Chest:
Right sided frag wounds and reduced air entry with hyper-resonant percussion. No neck signs or surgical emphysema. Left sided chest has scattered crackles.
Chest X-Ray - right sided pneumothorax, not under tension. Respiratory dynamics improve with chest drain.
Needs repatriation to home nation.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+90min	Arrives MTF
+100min	Assessment - respiratory distress. Pneumothorax diagnosed clinically or radiologically
+120min	Chest drain improves respiratory dynamics - sats improve, work of breathing and RR reduced (but not to "normal") bilateral crackles remain. Cough and chest pain remain.
+24hr	Remains on oxygen to maintain sats >94%
+48hr	Increased oxygen requirement
+72hr	Repatriation back to home nation, chest drain still in situ.

EXPECTED OUTCOME OF CASE

Survives, needs to be repatriated for ongoing chest care. No critical incidents in timeline.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
ABG initially pH 7.47 PaO2 10 kPa PaCO2 3.4 Lactate 3.0	Chest X-Ray - right sided pneumothorax CT (if done) right sided pneumothorax (or chest drain depending upon timing) no other injuries from frag wound - all superficial.	

ADDITIONAL COMMENTS including Moulage Information
Chest frag injury causing pneumothroax and resp distress - improves with chest drain Chlorine exposure causes chest deterioration on day 2 Required repatriation to home nation.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D7. Chlorine Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
115			40-50/min		Pain	2	4	2	

M			
I	Smoke exposure.		
S	Breathing problem		
T	**<c>** **M** None. No mask.		
	A **A** Critical, foaming.		
	B **R** Critical, RR 45, shallow.		
	C **C** CRT 2		
	D **H** None		
	E **E** None		

A	Not known
M	Not known
P	Not known
L	Not known
E	White-yellow smoke from local tank truck, smelled like swimming pool.
C	Depressed
R	40-50, shallow breathing.
E	Normal
S	White foam, with reddish tint.
S	Cyanotic

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Not wearing a gas mask.
Bag Valve Mask ventilation.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
115	100	70	45/min	85	Pain	2	4	2	

List of injuries (or disease findings):

Responsive to pain.
Cyanotic skin.
Chest auscultation: significant bilateral rales and crackles.
CRT 2

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+45min	Arrives medical facility.
+47min	Need for suction, administration of oxygen 15 liters/min to keep sat O2 > 88%. Need for bronchodilators.
+52min	Airway still critical, shallow breathing more pronounced. Arterial blood gas PaO2 8,2 kPa (15 L oxygen/min) and PaCO2 9,2 kPa. Intubation necessary.

EXPECTED OUTCOME OF CASE

Partial recovery within weeks but with reduced lung function..

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Arterial blood gas: pO2 below normal. Lactate and pCO2 elevated. pH 7.25.	Chest x-ray: bilateral opacities.	

ADDITIONAL COMMENTS including Moulage Information
Face: pale, cyanotic lips.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D8. Chlorine Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130			40/min		Unresp	1	1	1	

M			
I	Frag wounds to head and neck		
S	Unconscious, respiratory distress		
T	**<c>** **M** No catastrophic hemorrhage		
	A **A** Unconscious, airway obstructed		
	B **R** Respiratory distress		
	C **C** Tachycardic		
	D **H** Unconscious PERL (sluggish response)		
	E **E** None		

A	Unknown
M	Unknown
P	Unknown
L	Unknown
E	Blast and frag to head and neck, chlorine exposure not wearing respirator
C	Unconscious
R	Raised RR and work of breathing, pink frothy sputum, airway compromise
E	Red conjunctiva, pupils normal
S	Pink frothy sputum
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

OP airway inserted and tolerated, airway suction

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	100	65	40/min	90	Unresp	1	1	1	Sluggish pupils

List of injuries (or disease findings):

No lateralising neurological signs but GCS 3 with unprotected airway - will require intubation
Chest - bilateral crackles and low sats despite oxygen

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+40min	Arrive MTF
+45min	Should be intubated for unconsciousness
+60min	CT scan - multiple frag wounds to skull causing fractures and contusional brain injury - no neurosurgical intervention required. No other injuries
+6hr	More difficult to oxygenate, repatriation planned
+24hr	Stable on high FiO2, if ICP bolt - ICPs in low 20s, pupils remain reactive
+48hr	Repatriation

EXPECTED OUTCOME OF CASE

Contusional brain injury and severe lung injury - require repatriation to home nation via CCAST
ICPs high but not high enough for intervention - can have osmotic therapy
Reachback for neurosurgical input

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
ABG - shows hypoxaemia	CT - multiple frag wounds to skull causing fractures and contusional brain injury - no neurosurgical intervention required. No other injuries	

ADDITIONAL COMMENTS including Moulage Information

Chest injury from chlorine
Contusional brain injury requring max medical management on ITU and repatriation to home nation.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D9. Chlorine Non-Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	90	40	40/min	85	Pain	2	2	5	Large amounts of frothy sputum

M

I Exposure to vapour

S Breathing difficulty

T <c> **M** No Cat Heam. No mask

A **A** Secretions, reduced conscious level. Will develop airway issue

B **R** High RR, high respiratory effort, +++ secretions

C **C** Tachycardia and hypotensive, CRT 4 seconds

D **H** Responds to pain. Unable to speak or give history. PERL

E **E** None

A	NKDA (from uniform tag)
M	Unknown
P	Unknown
L	Unknown
E	Smell of swimming pool
C	Depressed conscious level
R	High RR, high resp effort, +++ secretions
E	Normal pupils, red irritated conjunctiva
S	Blood stained foam secretions
S	Cyanotic, dry

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Was not wearing respirator initially - was put on following exposure
No treatment given

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	80	40	50/min	78	Pain	1	2	5	Frothy secretions

List of injuries (or disease findings):

Chest examination:
Widespread crackles
Blood stained sputum
Cyanosis
Dehyrdated with CRT 4 seconds

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+60min	Arrives MTF
+65min	Initial assessment, airway suction and high flow oxygen (15L via NRB mask) sats improve to 85% work of breathing does not improve
+70min	ABG performed pH 7.5, PaO2 7.8kPa, PaCO2 2.7 kPa CPAP applied if MTF has this capacity- this improves oxygenation but patient does not tolerate it. If no CPAP available proceed to intubation.
+80min	CPAP not tolerated and/or further drop in Sats - should be intubated and mechanically ventilated - High PEEP, lung protective ventilation
+90min	Haemodynamic instability following intubation - becomes hypotensive (due to dehydration) - improves with fluid rescusitation
+3hr	On ITU - FiO2 0.7 sats fall to 80%, improve to 88 with FiO2 1.0. No pnemothoraces. Prone ventilation does not improve oxygenation. PF ratio 13
+5hr	Cardiac arrest on max ventilatory support - ALS if attempted is unsucessful

EXPECTED OUTCOME OF CASE

Death from failure to oxygenate despite all interventions

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
ABG: pH 7.5, PaO2 7.8kPa, PaCO2 2.7 kPa WCC 14 CRP 78 Coag normal Hb normal	Chest x-ray - florid bilateral infiltrates POC echo - empty initially but good LV function	

ADDITIONAL COMMENTS including Moulage Information

Will need intensive care - so admission or transfer depending upon MTF.

Becomes increasingly difficult to oxygenate despite high PEEP and high FiO2
Does not respond to prone ventilation

Hypoxic cardiac arrest on ITU.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template D10. Chlorine Non-Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
140			40/min	85	Unresp	1	2	4	

M			
I	Breathing difficulty, unconscious, frag injuries to abdomen and lower limb		
S	Breathing difficulty, unconscious		
T	**<c>** **M** Junctional hemorrhage left groin		
	A **A** Unconscious, pink frothy sputum		
	B **R** RR high, high work of breathing, frothy pink sputum		
	C **C** Tachycardic, no radial pulse		
	D **H** Unconscious PERL		
	E **E** None		

A	Unknown
M	Unknown
P	Unknown
L	Unknown
E	Exposure to vapour and frag wound from explosion
C	Unconscious
R	Rapid RR, high work of breathing, pink frothy sputum
E	Normal pupils, pink conjnctiva
S	Pink frothy sputum
S	Dry, shut down, cyanosis

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Celox gauze to left groin junctional hemorrhage
Respirator applied post exposure

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
140	70	30	40/min	85	Unresp	1	2	4	

List of injuries (or disease findings):

Cat hemorrhage controlled by celox
Concern regarding abdominal frag wounds - rigid and tender abdomen
Chest - widespread crackles

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+ 30min	Arrive MTF
+35min	Trauma primary survey - identifies treated catastrophic hemorrhage, haemodynamic instability, FAST (if possible) shows abdominal free fluid. Blood product transfusion should commence. Low sats and frothy sputum - sats 88% on 15L oxygen via NRB mask
+45min	CT scan (if possible) shows widespread pulmonary infiltrates, blood in abdomen and a transected femoral artery
+60min	Theatre for laparotomy - bleeding from mesenteric vessels, some bowel isachaemia, faecal contamination. Vascular shunt successful. Difficult to ventilate and requires high FiO2
+120min	Back on ITU. Remains tachycardic despite blood products. Difficult to ventilate PaO2 7.5 kPa on FiO2 0.9 and PEEP 15
+24hr	For repatriation to home nation. Still very unstable from a respiratory point of view. Sepsis from intra-abdominal pathology - requires second laparotomy which finds large areas of bowel ischaemia
+48hr	Repatriated and subsequently dies in transfer (from MOF) or dies in ITU of MOF if deemed unstable for transfer.

EXPECTED OUTCOME OF CASE

Death from MOF - sepsis from abdominal fragmentation injury as well as inability to oxygenate from chlorine mediated lung damage/ARDS

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Initial ABG pH 7.10 PaO2 8.9 kPa PaCO2 5.3 kPa Lactate 10 Subsequent ABG worse in all regards	CXR - widespread pulmonary infiltrates CT scan (if possible) shows widespread pulmonary infiltrates, blood in abdomen and a transected femoral artery	

ADDITIONAL COMMENTS including Moulage Information

Death on ITU or CCAST transfer back to home nation.

MOF from injury and chlorine exposure.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

E. Ammonia (NH_3) Simulated Patient Files

1. **Ammonia Survivor—Mild**
2. **Ammonia Survivor—Mild with Fragmentation Injury**
3. **Ammonia Survivor—Moderate**
4. **Ammonia Survivor—Moderate with Fragmentation Injury**
5. **Ammonia Survivor—Severe**
6. **Ammonia Survivor—Severe with Fragmentation Injury**
7. **Ammonia Survivor—Very Severe**
8. **Ammonia Survivor—Very Severe with Fragmentation Injury**
9. **Ammonia Non-Survivor—Very Severe**
10. **Ammonia Non-Survivor—Very Severe with Fragmentation Injury**

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E1. Ammonia Survivor—Mild)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
83	110	62	16/min	96	A	4	5	6	

M			
I	Exposed to ammonia		
S	Red and sore eyes, cough and shortness of breath		
T	**<c>** **M** Nil		
	A **A** Own		
	B **R** SOB		
	C **C** No issues		
	D **H** No issues		
	E **E** Red conunctiva		

A	None
M	None
P	None
L	Breakfast 0600
E	
C	Not confused
R	Slightly raised RR
E	Red conjunctiva - normal pupils
S	Nil
S	Nil

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen given

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
72	112	76	16/min	95	Alert	4	5	6	

List of injuries (or disease findings):

Red conjunctiva
Shortness of breath
Cough
Sneezing

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+3:00H	Arrives MTF
+3:30H	Initial assessment
+4:00H	Admitted to hold ward
+1D	Discharged - no ongoing issues - deemed fit to return to duties.

EXPECTED OUTCOME OF CASE

Returns to duties on day 2

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
No abnormalities	CXR normal	

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E2. Ammonia Survivor—Mild with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	92	45	20	94	Alert	4	4	6	

M			
I	Frag injury to both legs		
S	Mild shock. Red conjunctiva, cough and Shortness of Breath		
T	**<c>** **M** Nil		
	A **A** Own		
	B **R** Shortness of breath, cough and sneezing		
	C **C** Mild shock		
	D **H** Confused		
	E **E** Frag to both legs		

A	None
M	Nil
P	Nil
L	Breakfast 0600
E	
C	Conscious, confused
R	Elevated
E	Red and indurated, PERL
S	Nil
S	Nil

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Dressings applied to leg wounds

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
122	90	42	20	95	Alert	4	4	6	

List of injuries (or disease findings):

Frag wounds to both legs - thighs and lower legs

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1hr	Arrives MTF
+1.5hr	Primary survey
+4hr	Theatre for debridement of leg frag wounds
+2d (return to theatre)	Second debridement
+25d	Fit to return to duties

EXPECTED OUTCOME OF CASE

No issues from a CBRN point of view. Frag injuries require wound healing and physio - returns to duties at D+25

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Hb 82 on arrival	CXR normal CT if done - no injuires apart from frag to legs	

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E3. Ammonia Survivor—Moderate)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
95	117	62	20	94	Alert	4	5	6	

M		**A**	None
I	Exposed to ammonia	**M**	Nil
S	Red eyes, shortness of breath, cough, pain	**P**	Nil
T	<c> **M** Nil	**L**	Breakfast 0600
	A **A** Own - feels irritated	**E**	
	B **R** RR20 chest clear	**C**	Conscious
	C **C** Nil	**R**	High RR, SOB, Cough
	D **H** Nil	**E**	Photophobia, severe blepherospasm
	E **E** Eye signs	**S**	Nil
		S	Nil

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Nil given

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
98	125	74	22/min	95	Alert	4	5	6	

List of injuries (or disease findings):

Feels like throat is burning
Shortness of breath and cough - persistent
Eyes stinging and burning - severe conjunctivitis

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+4:00H	Arrives MTF
+5:00H	Initial assessment
+6:00H	Admitted to ward for observation
+1D	Slight improvement in symptoms
+2D	Much improved
+3D	Fit to return to duties

EXPECTED OUTCOME OF CASE

Returns to duties +3 days - no ongoing issues

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E4. Ammonia Survivor—Moderate with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	100	56	20	95	A	4	5	6	

M		
I		Frag injuries to right arm
S		Wounds to right arm, shortness of breath, cough, eye pain
T	**<c> M**	Nil
	A A	Own
	B R	Raised RR, Cough, SOB
	C C	Mild shock
	D H	Nil
	E E	Nil

A	None
M	Nil
P	Nil
L	Last night 22:00
E	
C	Nil
R	High RR, cough sneezing, SOB
E	Red and indurated, painful
S	Nil
S	Some secretions

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Dressing on right arm frag

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
112	96	54	22	95	Alert	4	5	6	

List of injuries (or disease findings):

Right upper arm frag wounds
Shortness of breath, cough, sneezing. Burning sensation in throat.
Eyes red and indurated, tearing, pain

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+3:00H	Arrives MTF
+3:30H	Primary survey
+8:00H	Theatre for debridement of wound
+1D	CBRN symptoms improving
+2D	Much improved
+3D	Discharged - ongoing physio for arm wounds
+20D	Fit to return to duties

EXPECTED OUTCOME OF CASE

Returns to duties +20 days

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E5. Ammonia Survivor—Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	90	45	26/min	92	Verbal	3	4	6	

M			
I	Nil traumatic CBRN only		
S	Shortness of breath, cough, sputum, eyes red and painful		
T	**<c>** **M** Nil		
	A **A** Own -laryngospasm		
	B **R** High, shortness of breath, cough		
	C **C** Tachycardic		
	D **H** Confused		
	E **E** Nil		

A	Penicillin
M	Nil
P	Nil
L	Breakfast 05:30
E	
C	Confused
R	High RR, shortness of breath
E	Red and ulcerated
S	Sweaty
S	Lots of mucus coughed up

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	92	46	26/min	93	Verbal	3	4	6	

List of injuries (or disease findings):

No injuries
Chest - shortness of breath, pain in chest, lots of mucus coughed up
Eyes - red and ulcerated

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2:00H	Arrives MTF
+3:00H	Primary survey
+4:00H	Admitted ward - needs oxygen therapy
+1D	Stable but oxygen dependent
+2D	Deteriorates - supra-added bacterial infection
+3D	Some improvement
+8D	Discharged and fit to return to duties

EXPECTED OUTCOME OF CASE

Improves and back to duties at +8 days

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
ABG if done: pH - 7.48 PaO2 - 9 PaCO2 - 3.0 BE - -3 Lactate 2	CXR - infiltrates bilateralllly	

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E6. Ammonia Survivor—Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	70	30	30/min	90	Pain	2	2	5	

M		**A**	Unknown
I	Frag to abdomen	**M**	Unknown
S	Severe shock, shortness of breath, eyes ulcerated	**P**	Unknown
T	**<c>** **M** Nil external	**L**	Unknown
	A **A** Own, stridor	**E**	
	B **R** High RR, cough and thick sputum	**C**	Unconscious
	C **C** Unstable	**R**	High RR, coughing
	D **H** Reduced GCS	**E**	Red and ulcerated
	E **E** Large abdo frag wounds	**S**	Nil
		S	Thick sputum

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Nil given - just transport after identification of severity

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	80	38	30/min	90	Pain	2	2	5	

List of injuries (or disease findings):

Abdo distended - FAST positive
Responds to blood products if given
Eyes red and ulcerated
Shortness of breath and coughing - thick sputum

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:30H	Arrive MTF
+0:35H	Primary survey - identifies abdominal bleeding
+1:00H	Theatre - DCS - laparotomy and packing
+3:00H	Evacuated up chain
+1D	Re-look lapertomy
+2D	Evacuation back to host nation care

EXPECTED OUTCOME OF CASE

Evacuated to host nation care

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Hb 90 Lactate 9 ABG if done: pH 7.32 PaO2 - 8 PaCO2 - 2.4 Lactae 9 BE - -18	FAST - positive CXR clear	

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E7. Ammonia Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
114	90	42	30	88	P	2	2	4	

M

I Exposed to ammonia

S Severe respiratory failure

T <c> **M** Nil

A **A** Stridor, airway burns, sloughing of mucosa

B **R** Severe respiratory failure

C **C** Tachycardic

D **H** Nil

E **E** Nil

A	Unknown
M	Unknown
P	Unknown
L	Unknown
E	
C	Unconscious
R	High, shortness of breath, airway burns
E	Red and ulcerated, PERL
S	Sweaty, blue
S	++ secretions

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen given

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	90	36	34/min	88	Pain	2	2	4	

List of injuries (or disease findings):

Severe shortness of breath
Airway - stridor and sloughing of mucosa
Reduced consciousness level

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1:00H	Arrive MTF
+1:30H	Intubated to protect airway and for respiratory support
+8:00H	Evacuated up medical chain
+3D	Evacuated to home nation still intubated
+8D	Extubated in home nation
Ongoing	Convalescence

EXPECTED OUTCOME OF CASE

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
ABG: pH - 7.3 PaO2 - 6 PaCO2 3.1 BE - 1 Lactate - 5	CXR - pulmoanry infiltrates/oedema	

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E8. Ammonia Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	80	30	30/min	88	U	1	1	1	

M		**A**	Unknown
I	Frag to face and head	**M**	Unknown
S	Severe resp distress	**P**	Unknown
T	**<c>** **M** Nil	**L**	Unknown
		E	
	A **A** Stridor and obstruction, sloughly		
	B **R** Severe resp distress	**C**	Unconscious
	C **C** Unstable	**R**	Severe resp distress
	D **H** Unconscious - head frag and blown pupil	**E**	Ulcerated. Left pupil 2 right 6 and unreactive
	E **E** Nil	**S**	Nil
		S	Lots of secretions

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

OPA, Oxygen

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	80	40	34/min	86	U	1	1	1	Blown pupil

List of injuries (or disease findings):

Head frag - blown pupil
Severe respiratory distress
Airway slough and stridor + obstruction

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:30H	Arrive MTF
+0:40H	Intubated for resp support and airway protection
+1:00H	Burr hole evacuation of EDH (+/- CT head if able)
+2:00H	On ITU
+1D	Host nation evacuation

EXPECTED OUTCOME OF CASE

Survives with poor neurological outcome.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
ABG: pH - 7.23 PaO2 - 5 PaCO2 - 9 BE -3 Lactate 3	CXR - pulmonary oedema CT if able - extradural on right	

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E9. Ammonia Non-Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	88	46	40/min	85	P	1	2	1	

M

I Exposed to ammonia

S Severe shortness of breath

T <c> **M** Nil

A **A** Obstructed, stridor

B **R** Severe distress

C **C** Tachycardia

D **H** Unconscious

E **E** Nil

A Unknown

M Unknown

P Unknown

L Unknown

E

C Unconscious

R Severe respiratory distress

E Red and ulcerated, PERL

S Pink frothy sputum

S Cyanosed

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen, OPA

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
132	88	40	40/min	80	U	1	1	1	Seizure on arrival

List of injuries (or disease findings):

Severe respiratory distress
Unconscious - starts fitting in ED

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:20H	Arrive MTF
+0:30H	Intubated for respiratory distress and unconsciousness.
+2:00H	ITU - severe respiratory distress - requires prone ventilation
+1D	Severe respiratory distress - progressing to MOF
+2D	Re-patriated to home nation - multi-organ failure

EXPECTED OUTCOME OF CASE

Dies on ITU at R4

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
ABG: pH - 7.2 PaO2 - 5 PaCO2 - 7 BE - -4 Lactate - 4	CXR - severe pulmonary infiltrates - widespread If done - CTH normal	

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template E10. Ammonia Non-Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
140	60	20	40/min	80	U	1	1	1	

M			
I	Frag injuries to chest and abdomen	**A**	Unknown
S	Severe shortness of breath, R chest reduced movement	**M**	Unknown
T	**<c>** **M** Nil external	**P**	Unknown
	A **A** Stridor and obstructed	**L**	Unknown
	B **R** Severe distress, reduced AE right	**E**	
	C **C** Severe shock	**C**	Unconscious
	D **H** Unconscious	**R**	Severe distress
	E **E** Frag to chest and abdomen	**E**	Red and indurated
		S	Pink frothy sputum ++
		S	Cyanosed

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
140	60	20	40/min	75	U	1	1	1	

List of injuries (or disease findings):

Frag to chest - open pneumothorax on right
Abdo distended
Pink frothy sputum ++
Stridor and obstructed airway

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0:10H	Arrives MTF
+0:15H	Intubated for resp support and low GCS. Cardiac arrest at intubation. No response to blood, chest decompression or thoracotomy
+1:00H	Resuscitation discontinued - dies.

EXPECTED OUTCOME OF CASE

Death in MTF

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
ABG: pH 7.1 PaO2 - 4 PaCO2 - 9 BE - -10 Lactate 20	CXR - right pneumothorax - and severe bilateral infiltrates	
ADDITIONAL COMMENTS including Moulage Information		

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

F. Hydrogen Cyanide (AC) and Cyanogen Chlorine (CK) Simulated Patient Files

1. **Cyanide Survivor—Mild**

2. **Cyanide Survivor—Mild with Fragmentation Injury**

3. **Cyanide Survivor—Moderate**

4. **Cyanide Survivor—Moderate with Fragmentation Injury**

5. **Cyanide Survivor—Severe**

6. **Cyanide Non-Survivor—Severe**

7. **Cyanide Survivor—Severe with Fragmentation Injury**

8. **Cyanide Survivor—Very Severe**

9. **Cyanide Survivor—Very Severe with Fragmentation Injury**

10. **Cyanide Non-Survivor—Very Severe**

11. **Cyanide Non-Survivor—Very Severe with Fragmentation Injury**

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F1. Cyanide Survivor—Mild)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(patient somehow exposed via a fire e.g., in a building)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	150	90	22/min	96	Alert	4	5	6	

M

I No visible injuries. Soot around nose and face.

S Distressed, headache.

T <c> **M** None. No mask.

A **A** Clear

B **R** Clear

C **C** CRT 2

D **H** None

E **E** Soot in face.

A None

M None

P None

L Unknown

E

C Conscious. Shaking a little.

R Increased

E Normal

S Normal

S Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Supplemental oxygen.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	151	89	18/min	100	Alert	4	5	6	

List of injuries (or disease findings):

Soot in face.
Headache.
Shaking of arms, appears distressed.
CRT 2

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+4min	Arrives at medical facility.
+7min	After initial assessment, toxidrome and events leading up to trauma, the conclusions should be that the victim likely does not have cyanide poisoning. She should be kept for observation and evaluated if supplemental oxygen is needed.

EXPECTED OUTCOME OF CASE

In smoke exposed, and burn victims, cyanide poisoning should always be expected/suspected, and treatment initiated if needed.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Soot in face.
Headache.
Shaking of arms, appears distressed.
Scenario can be set up with or without gas mask and personal protection equipment.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F2. Cyanide Survivor—Mild with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	140	70	26/min	99	Alert	4	5	6	open fracture right arm

M		**A**	No known
I	Open fracture right arm, small bruises all over the body	**M**	No regular
S	Notes anxiety, dizziness, headache, red eyes	**P**	Free
T	**<c>** **M** Not present	**L**	Four hours
	A **A** Spontaneous airway / not given	**E**	
	B **R** Tachypneic, cough. / no decon yet.	**C**	Somewhat agitated, but conscious
	C **C** Stable, tachycardia / movement restricted	**R**	Tachypneic, cough / not yet
	D **H** Apart from slight dizziness, no / normal	**E**	Normal
	E **E**	**S**	Normal
		S	Hot

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Was given opiate (morphine / fentanyl) and supplemental oxygen

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	130	75	20/min	98	Verbal	3	4	6	

List of injuries (or disease findings):

Small bruises all over his body
Open fracture on right humerus
Small open wounds caused by debris from the explosion on face

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+45min	Arrives to medical facility, vitals see above
+50min	Possible cyanide intoxication noted, still stable
+55min	Decontamination, soapy wash
+60min	Sodium nitrite given (somewhat unnecessarily). Patient develops tachycardia, tachypnea, his saturation drops, 120/min, 30/min, 94%.
+75min	Oxygen given, saturation 97%
+120min	Methylene blue given, tachycardia eases 90/min, normal breath 18/min, still normal saturation.

EXPECTED OUTCOME OF CASE

Sodium nitrite might cause severe methemoglobinaemia, which lowers the oxygen delivery to the tissues. This might worsen the clinical symptoms. Methemoglobinaemia can be reversed by methylene blue injection.

Patient admitted for observation, will need trauma surgery

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
When performed lee-jones is positive Whole blood cyanide: 21 umol/l	Dislocated fracture of right humerus	

ADDITIONAL COMMENTS including Moulage Information
Bruises, open wound, open right femoral fracture

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F3. Cyanide Survivor—Moderate)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	90	60	32/min	97	Verbal	4	3	6	No visible injuries

M			
I	Intoxicated		
S	Notes difficulty of breathing, anxiety, vomited few times, burning sensation in airways		
T	**<c>** **M** Not present		
	A **A** Spontaneous airway / not given		
	B **R** Tachypnea, cough. / no decon yet.		
	C **C** Hypotension, tachycardia / movement restricted		
	D **H** Drowsy, weak, notes involuntary muscle spasms / normal		
	E **E** Still in hot zone as can not walk		
		A	No known
		M	No regular
		P	Free
		L	Just have eaten
		E	
		C	Drowsy, weak, can not walk, stand up.
		R	Tachypneic, cough / not yet
		E	Normal
		S	Normal
		S	Pale, hot

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Did not get any treatment yet, still in the hot zone

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	85	55	32/min	98	Verbal	3	4	6	

List of injuries (or disease findings):

No external injuries, wounds.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5min	Oxygen put on by first responders
+15min	Arrives to medical facility
+20min	Lactate acidosis with normal paO2, saturation, elevated anion gap, possible cyanide toxicity - amilnitrite inhaled, no improvement
+25min	4 DMAP, sulfur donors (depending on national protocols, availability) given.
+120min	Patient notably improves after treatment
+180min	Oxygen still given, saturation back to normal 99%

EXPECTED OUTCOME OF CASE

Patient survives the initial cyanide poisoning, after supportive and specific treatment, the patient recovers, might return to duty on day 2.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
When performed lee-jones is positive Whole blood cyanide: 62 umol/l	Not relevant	

ADDITIONAL COMMENTS including Moulage Information
Moulage: drowsy patient in respiratory distress

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F4. Cyanide Survivor—Moderate with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	90	60	32/min	96	Verbal	2	3	5	Many wounds and bruises, tibial fracture

M			
I	Left tibial fracture, many bruises and wounds, intoxicated		
S	Drowsy, in severe pain		
T	**<c>** **M** No overt bleeding		
	A **A** Spontaneous airway / not given		
	B **R** Tachypnea, swallow breathing, coughs / no decon yet.		
	C **C** Hypotension, tachycardia / movement restricted		
	D **H** Drowsy, weak, in severe pain / normal		
	E **E**		

A	No known
M	No regular
P	Known G-6-P deficiency
L	6 hours passed
E	
C	Drowsy, weak, depressed consciousness
R	Tachypneic, cough / not yet
E	Normal
S	Normal
S	Pale, hot

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen, painkillers, normal saline given on site

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	95	55	28/min	98	Verbal	2	3	5	

List of injuries (or disease findings):

Besides tibial fracture, open wounds and bruises on his body, also hit his head during the impact

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5	Oxygen put on by first responders, painkillers give, iv fluid started
+12	Arrives to medical facility
+15	Lactate acidosis with normal paO2, saturation, elevated anion gap, possible cyanide toxicity - amilnitrite inhaled
+25	Because of known G-6-P deficiency, sodium nitrite contraindicated. 4DMAP given.
+120	Patient stabilises after treatment
+180	Transferred to ROLE2/3

EXPECTED OUTCOME OF CASE

Patient had fragmentation injuries due to the explosion, also cyanide poisoning. Cyanide was moderate, could be reversed by supportive and specific treatment. Still needs ROLE3 care for OP/REHAB of tibial fracture

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
When performed lee-jones is positive whole blood cyanide: 52 umol/l	Tibial fracture Head CT normal No PTX on chest x-ray/CT	

ADDITIONAL COMMENTS including Moulage Information

Moulage: drowsy patient in respiratory distress with tibial fracture, visible head injury (meaning large wound). Many bruises.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F5. Cyanide Survivor—Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(patient somehow exposed via a fire e.g., in a building)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
86	120	75	38/min	-	Unresp	1	1	1	

M		**A**	Unknown
I	Burns to face and hands.	**M**	Unknown
S	Unconscious, rapid respiration.	**P**	Unknown
T	<c> **M** None. No mask.	**L**	Unknown
	A **A** Clear	**E**	
	B **R** Critical, RR 38	**C**	Unconscious. Hands shaking.
	C **C** Okay.	**R**	Increased
	D **H** Burns face and hands	**E**	Dilated pupils
	E **E** -	**S**	Normal
		S	Pink-ish on chest

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Chin lift. Bag Valve Mask with supplemental oxygen.
Burn treatment bandage on hands, and partially on face.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	110	60	45/min	-	Unresp	1	1	1	

List of injuries (or disease findings):

2nd degree burns to face, incl. ears and both hands (therefore not possible to get SATS reading).
Rapid, superficial breathing.
Visible pink-ish hue of skin.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+4min	Arrives at medical facility.
+7min	After initial assessment, toxidrome and events leading up to trauma, the diagnosis should be cyanide poisoning and relevant treatment initiated with Cyano-kit, or other relevant remedy.

EXPECTED OUTCOME OF CASE

In burn victims cyanide poisoning should always be expected/suspected, and treatment initiated. In this case, relevant treatment is initiated immediately upon arrival to medical facility, and the patient will survive.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

2nd degree burns to face, incl. ears and both hands.
Rapid, superficial breathing.
Visible pink-ish hue of skin.
Scenario can be set up with or without gas mask and personal protection equipment.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F6. Cyanide Non-Survivor—Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(patient somehow exposed via a fire e.g., in a building)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
86	120	75	38/min	-	Unresp	1	1	1	

M		**A**	Unknown
I	Burns to face and hands.	**M**	Unknown
S	Unconscious, rapid respiration.	**P**	Unknown
T	<c> **M** None. No mask.	**L**	Unknown
	A **A** Clear	**E**	
	B **R** Critical, RR 38	**C**	Unconscious. Hands shaking.
	C **C** Okay.	**R**	Increased
	D **H** Burns face and hands	**E**	Dilated pupils
	E **E** -	**S**	Normal
		S	Pink-ish on chest

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Chin lift. Bag Valve Mask with supplemental oxygen.
Burn treatment bandage on hands, and partially on face.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	110	60	45/min	-	Unresp	1	1	1	

List of injuries (or disease findings):

2nd degree burns to face, incl. ears and both hands (therefore not possible to get SATS reading).
Rapid, superficial breathing.
Visible pink-ish hue of skin.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+4min	Arrives at medical facility.
+7min	After initial assessment, toxidrome and events leading up to trauma, the diagnosis should be cyanid poisoning and relevant treatment initiated with Cyano-kit, or other relevant remedy.

EXPECTED OUTCOME OF CASE

In burn victims cyanid poisoning should always be expected/suspected, and treatment initiated. In this case, relevant treatment is not initiated upon arrival to medical facility, and this patient will die.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

2nd degree burns to face, incl. ears and both hands.
Rapid, superficial breathing.
Visible pink-ish hue of skin.
Scenario can be set up with or without gas mask and personal protection equipment.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F7. Cyanide Survivor—Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	55	35	30/min	92	Unresp	1	2	3	Head injury

M		
I		Visible head injury / severely intoxicated
S		Unresponsive
T	**<c>** **M**	No bleeding
	A **A**	Spontaneous airway still patent / not given
	B **R**	Tachypnea, breathing stops and starts / no decon yet.
	C **C**	Hypotension, tachycardia
	D **H**	Unresponsive/ normal
	E **E**	

A	No known
M	No regular
P	Nothing relevant
L	6 hours passed
E	
C	Unconscious. Convulsions come and go
R	Shallow breathing, which seems to stop and restart / not yet
E	Anisocoria
S	Normal
S	Pale

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen given by other EMS members

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
45	72	30	28/min	100	Unresp	1	T	1	

List of injuries (or disease findings):

Hit his head severely while collapsing

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5min	Oxygen put on by first responders, iv fluid resuscitation
+10min	Convulsions (benzodiazepine given by EMS). Still unresponsive, deteriorating vital parameters
+15min	Arrives to medical facility intubated, ventilated. HR: 55/min, BP: 75/40 SAT: 100% 1-T-1
+15min	Lactate acidosis with elevated paO2, normal saturation, elevated anion gap, possible cyanide toxicity - amilnitrite inhaled in the bag (if still in use).
+20min	4DMAP given. Sulfur donors given (depending on national availability)
+30min	CT scan reveals intracranial bleeding (epidural / subdural as preferred)
+60min	Patient stabilises on ventilatory and circulatory support
+120(?)min	Transferred to ROLE2/3

EXPECTED OUTCOME OF CASE

Severely intoxicated patient by cyanide. sustained severe head injury when he became unconscious and fell.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
When performed lee-jones is positive Whole blood cyanide: 102 umol/l	Head CT: intracranial bleeding No PTX on chest x-ray/CT	

ADDITIONAL COMMENTS including Moulage Information
Severe head injury which needs neurosurgery and further ICU care

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F8. Cyanide Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
35	55	35	6/min	72	Unresp	1	1	1	No visible injury

M		
I		Severely intoxicated
S		Unresponsive
T	**<c> M**	No bleeding
	A A	Basic airway (naso/oropharyngeal tube) in place
	B R	Tachypnea, breathing stops and starts / no decon yet.
	C C	Hypotension, severe bradycardia
	D H	Unresponsive/ normal
	E E	

A	No known
M	No regular
P	Nothing relevant
L	6 hours passed
E	
C	Unconscious. Regular convulsions, GCS 1-T-1
R	Shallow, slow breathing / not yet
E	Normal
S	Normal
S	Cyanotic

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen given, iv resuscitation, atropine. Got intubated and ventilated on scene.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
45	72	30	20/min	100	Unresp	1	T	1	

List of injuries (or disease findings):

No injuries

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5min	Oxygen put on by first responders, iv fluid resuscitation, atropine
+8min	Intubated, ventilated, benzodiazepine give for recurrent convulsions.
+15min	Arrives to medical facility intubated, ventilated. HR: 45/min, 100% 1-T-1
+15min	Lactate acidosis with elevated paO2, by now normal saturation, elevated anion gap, possible cyanide toxicity
+20min	4DMAP given. Sulfur donors given (depending on national availability)
+60min	Patient stabilises on ventilatory and circulatory support
+120min	Transferred to ROLE2/3

EXPECTED OUTCOME OF CASE

Severely intoxicated patient by cyanide. Needs supportive care for days. Later extubated, survives.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
When performed lee-jones is positive Whole blood cyanide: 110 umol/l	No PTX on chest x-ray/CT	

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F9. Cyanide Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	60	40	6/min	85	Unresp	1	1	1	Traumatic amputation of both legs (below knee)

M			
I	Traumatic amputation of lower extremities / severely intoxicated		
S	Unresponsive		
T	**<c>** **M** No current bleeding but tourniquet on both legs		
	A **A** Basic airway (naso/oropharyngeal tube) in place		
	B **R** Tachypnea, breathing stops and starts / no decon yet.		
	C **C** Hypotension, severe bradycardia		
	D **H** Unresponsive / normal		
	E **E** Guard, while in duty the vehicle approached and exploded . Got both his legs blown off.		

A	No known
M	No regular
P	Nothing relevant
L	6 hours passed
E	
C	Unconscious. Regular convulsions, GCS 1-T-1
R	Shallow, slow breathing / not yet
E	Normal
S	Normal
S	Cyanotic

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen given, iv resuscitation, by EMS members. Got intubated and ventilated on scene.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	55	30	20/min	89	Unresp	1	T	1	

List of injuries (or disease findings):

Below knee amputations on both legs. Also sustains PTX (not noted before arriving to the medical facility)

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5min	Oxygen put on by first responders, iv fluid resuscitation, atropine
+8min	Intubated, ventilated, benzodiazepine give for recurrent convulsions. After positive pressure ventilation his blood pressure drops, and saturation can not get normalised
+15min	Arrives to medical facility intubated, ventilated. HR: 45/min, 100% 1-T-1
+15min	Lactate acidosis with elevated paO2, by now normal saturation, elevated anion gap, possible cyanide toxicity signs of PTX noted, detension on both sides. Low hgb value noted.
+20min	4DMAP given. Sulfur donors given (depending on national availability) After detensioning his chest vitals gets close to normal. Blood infused.
+60min	Patient stabilises on ventilatory and circulatory support
+120min	Transferred to ROLE2/3

EXPECTED OUTCOME OF CASE

Severely intoxicated patient by cyanide, also severe fragmentation injury (amputated legs, PTX). NEEDS ROLE 3

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
When performed lee-jones is positive Whole blood cyanide: 110 umol/l	PTX on chest X-ray, CT otherwise normal	

ADDITIONAL COMMENTS including Moulage Information
Moulage officer with blown off legs, tourniquets on both legs, thorax injury.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F10. Cyanide Non-Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
40	55	30	40/min	93	Unresp	1	1	1	No visible injury

M			
I	No visible injury		
S	Unresponsive		
T	**<c>** **M** No bleeding / no mask		
	A **A** Secretions, lays on side, hardly detectable rapid swallow breathing		
	B **R** Tachypnea / no decon yet.		
	C **C** Hypotension, severe bradycardia		
	D **H** Unresponsive / normal		
	E **E** Victim of cyanide intoxication		
		A	No known
		M	No regular
		P	Nothing relevant
		L	6 hours passed
		E	
		C	Unconscious. Regular convulsions, GCS 1-T-1
		R	Shallow, fast breathing / not yet
		E	Normal
		S	Normal
		S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen only

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
35	50	20	20/min	93	Unresp	1	1	1	

List of injuries (or disease findings):

No traumatic injury occurred. Was brought to the medical facility laying on his/her side, O2 mask, no other treatment.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5min	Oxygen put on by first responders
+10min	Reaches medical facility
+15min	Lactate acidosis with low paO2, elevated anion gap, possible cyanide toxicity
+20min	4DMAP, sulfur donors given
+60min	Patient deteriorates despite treatment, pronounced dead

EXPECTED OUTCOME OF CASE

Severely intoxicated patient by cyanide, irreversible state

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Whole blood cyanide: 160 umol/l		

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template F11. Cyanide Non-Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T4

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
0	0	0	0/min	0	Unresp	1	1	1	Severely broken bones

M			
I	Many visible fractures, unresponsive, dead		
S	Unresponsive		
T	**<c>** **M** No bleeding / no mask		
	A **A** Secretions, prone, no breathing		
	B **R** No breathing / no decon yet.		
	C **C** No pulse		
	D **H** Unresponsive/ normal		
	E **E** Dead on scene		

A	No known
M	No regular
P	Nothing relevant
L	6 hours passed
E	
C	Unconscious. GCS 1-T-1
R	
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
					Unresp	1	1	1	

List of injuries (or disease findings):

Does not reach the medical facility, dead on scene

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5min	Oxygen put on by first responders
+10min	Pronounced dead on scene

EXPECTED OUTCOME OF CASE

Dead on scene. The reason to include in the scenario is that for a MASCAL situation, no one should start to provide care for T4/D patients.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Moulage: severely broken bones, burns, wounds all over the body.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

G. Hydrogen Sulfide (H_2S) Simulated Patient Files

1. **Hydrogen Sulfide Survivor—Mild**
2. **Hydrogen Sulfide Survivor—Mild with Fragmentation Injury**
3. **Hydrogen Sulfide Survivor—Moderate**
4. **Hydrogen Sulfide Survivor—Moderate with Fragmentation Injury**
5. **Hydrogen Sulfide Survivor—Severe**
6. **Hydrogen Sulfide Survivor—Severe with Fragmentation Injury**
7. **Hydrogen Sulfide Survivor—Very Severe**
8. **Hydrogen Sulfide Survivor—Very Severe with Fragmentation Injury**
9. **Hydrogen Sulfide Non-Survivor—Very Severe**
10. **Hydrogen Sulfide Non-Survivor—Very Severe with Fragmentation Injury**

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G1. Hydrogen Sulfide Survivor—Mild)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	150	90	22/min	96	Alert	4	5	6	

M

I No visible injuries. Soot around nose and face.

S Distressed, headache.

T <c> **M** None. No mask.

A **A** Clear

B **R** Clear

C **C** CRT 2

D **H** None

E **E** Soot in face.

A None

M None

P None

L Unknown

E

C Conscious. Shaking a little.

R Increased

E Normal

S Normal

S Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Supplemental oxygen.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	151	89	18/min	100	Alert	4	5	6	

List of injuries (or disease findings):

Headache.
Shaking of arms, appears distressed.
CRT 2

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+4min	Arrives at medical facility.
+7min	After initial assessment, toxidrome and events leading up to trauma, the conclusions should be that the victim likely does not have cyanide or H2S poisoning. She should be kept for observation and evaluated if supplemental oxygen is needed.

EXPECTED OUTCOME OF CASE

Discharge and RTD (if military)

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Headache.
Shaking of arms, appears distressed.
Scenario can be set up with or without gas mask and personal protection equipment.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G2. Hydrogen Sulfide Survivor—Mild with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	140	70	26/min	99	Alert	4	5	6	open fracture right arm

M		**A**	No known
I	Open fracture right arm, small bruises all over the body	**M**	No regular
S	Notes anxiety, dizziness, headache, red eyes	**P**	Free
T	**<c>** **M** Not present	**L**	Four hours
	A **A** Spontaneous airway / not given	**E**	
	B **R** Tachypneic, cough. / no decon yet.	**C**	Somewhat agitated, but conscious
	C **C** Stable, tachycardia / movement restricted	**R**	Tachypneic, cough / not yet
	D **H** Apart from slight dizziness, no / normal	**E**	Normal
	E **E**	**S**	Normal
		S	Hot

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Was given opiate (morphine / fentanyl) and supplemental oxygen

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	130	75	20/min	98	Verbal	3	4	6	

List of injuries (or disease findings):

Small bruises all over his body
Open fracture on right humerus
Small open wounds caused by debris from the explosion on face

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+45min	Arrives to medical facility, vitals see above
+50min	Possible cyanide/H2S intoxication noted, still stable
+55min	Decontamination, soapy wash
+60min	If sodium nitrite given (somewhat unnecessarily), patient develops tachycardia, tachypnea, his saturation drops, 120/min, 30/min, 94%.
+75min	Oxygen given, saturation 97%

EXPECTED OUTCOME OF CASE

Sodium nitrite might cause severe methemoglobinaemia, which lowers the oxygen delivery to the tissues. This might worsen the clinical symptoms. Methemoglobinaemia can be reversed by methylene blue injection.

Patient admitted for observation, will need trauma surgery

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
	Dislocated fracture of right humerus	

ADDITIONAL COMMENTS including Moulage Information
Bruises, open wound, open right femoral fracture

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G3. Hydrogen Sulfide Survivor—Moderate)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	90	60	32/min	97	Verbal	4	3	6	No visible injuries

M			
I	Intoxicated		
S	Notes difficulty of breathing, anxiety, vomited few times, burning sensation in airways		
T	**<c>** **M** Not present		
	A **A** Spontaneous airway / not given		
	B **R** Tachypnea, cough. / no decon yet.		
	C **C** Hypotension, tachycardia / movement restricted		
	D **H** Drowsy, weak, notes involuntary muscle spasms / normal		
	E **E** Still in hot zone as can not walk		
		A	No known
		M	No regular
		P	Free
		L	Just have eaten
		E	
		C	Drowsy, weak, can not walk, stand up.
		R	Tachypneic, cough / not yet
		E	Normal
		S	Normal
		S	Pale, hot

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Did not get any treatment yet, still in the hot zone

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	85	55	32/min	98	Verbal	3	4	6	

List of injuries (or disease findings):

No external injuries, wounds.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5min	Oxygen put on by first responders
+15min	Arrives to medical facility
+20min	Lactate acidosis with normal paO2, saturation, elevated anion gap, possible cyanide/H2S toxicity
+25min	4 DMAP, sulfur donors (depending on national protocols, availability) given.
+120min	Patient notably improves after treatment
+180min	Oxygen still given, saturation back to normal 99%

EXPECTED OUTCOME OF CASE

Patient survives the initial poisoning, after supportive and specific treatment, the patient recovers, might return to duty on day 2.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
	Not relevant	

ADDITIONAL COMMENTS including Moulage Information
Moulage: drowsy patient in respiratory distress

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G4. Hydrogen Sulfide Survivor—Moderate with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	90	60	32/min	96	Verbal	2	3	5	Many wounds and bruises, tibial fracture

M			
I	Left tibial fracture, many bruises and wounds, intoxicated		
S	Drowsy, in severe pain		
T	**<c>** **M** No overt bleeding		
	A **A** Spontaneous airway / not given		
	B **R** Tachypnea, swallow breathing, coughs / no decon yet.		
	C **C** Hypotension, tachycardia / movement restricted		
	D **H** Drowsy, weak, in severe pain / normal		
	E **E**		

A	No known
M	No regular
P	Known G-6-P deficiency
L	6 hours passed
E	
C	Drowsy, weak, depressed consciousness
R	Tachypneic, cough / not yet
E	Normal
S	Normal
S	Pale, hot

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen, painkillers, normal saline given on site

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	95	55	28/min	98	Verbal	2	3	5	

List of injuries (or disease findings):

Besides tibial fracture, open wounds and bruises on his body, also hit his head during the impact

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5	Oxygen put on by first responders, painkillers give, iv fluid started
+12	Arrives to medical facility
+15	Lactate acidosis with normal paO2, saturation, elevated anion gap, possible cyanide toxicity
+25	Because of known G-6-P deficiency, sodium nitrite contraindicated. 4DMAP given.
+120	Patient stabilises after treatment
+180	Transferred to ROLE2/3

EXPECTED OUTCOME OF CASE

Patient had fragmentation injuries due to the explosion, also H2S poisoning. Poisoning was moderate, could be reversed by supportive and specific treatment. Still needs ROLE3 care for OP/REHAB of tibial fracture

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
	Tibial fracture Head CT normal No PTX on chest x-ray/CT	

ADDITIONAL COMMENTS including Moulage Information

Moulage: drowsy patient in respiratory distress with tibial fracture, visible head injury (meaning large wound). Many bruises.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G5. Hydrogen Sulfide Survivor—Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
86	120	75	38/min	-	Unresp	1	1	1	

M

I No visible injuries

S Unconscious, rapid respiration.

T <c> **M** None. No mask.

A **A** Clear

B **R** Critical, RR 38

C **C** Okay.

D **H** Okay.

E **E** -

A Unknown
M Unknown
P Unknown
L Unknown
E

C Unconscious. Hands shaking.
R Increased
E Dilated pupils
S Normal
S Pink-ish on chest

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Chin lift. Bag Valve Mask with supplemental oxygen.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	110	60	45/min	-	Unresp	1	1	1	

List of injuries (or disease findings):

Rapid, superficial breathing.
Visible pink-ish hue of skin.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+4min	Arrives at medical facility.
+7min	After initial assessment, toxidrome and events leading up to trauma, the diagnosis should be cyanide or H2S poisoning and relevant treatment initiated.

EXPECTED OUTCOME OF CASE

Patient will survive with treatment

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information

Rapid, superficial breathing.
Visible pink-ish hue of skin.
Scenario can be set up with or without gas mask and personal protection equipment.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G6. Hydrogen Sulfide Survivor—Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	55	35	30/min	92	Unresp	1	2	3	Head injury

M		
I		Visible head injury / severely intoxicated
S		Unresponsive
T	**<c>** **M**	No bleeding
	A **A**	Spontaneous airway still patent / not given
	B **R**	Tachypnea, breathing stops and starts / no decon yet.
	C **C**	Hypotension, tachycardia
	D **H**	Unresponsive/ normal
	E **E**	

A	No known
M	No regular
P	Nothing relevant
L	6 hours passed
E	
C	Unconscious. Convulsions come and go
R	Shallow breathing, which seems to stop and restart / not yet
E	Anisocoria
S	Normal
S	Pale

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen given

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
45	72	30	28/min	100	Unresp	1	T	1	

List of injuries (or disease findings):

Hit his head severely while collapsing

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+5min	Oxygen put on by first responders, iv fluid resuscitation
+10min	Convulsions (benzodiazepine given by EMS). Still unresponsive, deteriorating vital parameters
+15min	Arrives to medical facility intubated, ventilated. HR: 55/min, BP: 75/40 SAT: 100% 1-T-1
+15min	Lactate acidosis with elevated paO2, normal saturation, elevated anion gap, possible cyanide or H2S toxicity
+20min	4DMAP given. Sulfur donors may be given (depending on national availability) but do not help with H2S toxicity
+30min	CT scan reveals intracranial bleeding (epidural / subdural as preferred)
+60min	Patient stabilises on ventilatory and circulatory support
+120(?)min	Transferred to ROLE2/3

EXPECTED OUTCOME OF CASE

Severely intoxicated patient by H2S. Sustained severe head injury when he became unconscious and fell.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
	Head CT: intracranial bleeding No PTX on chest x-ray/CT	

ADDITIONAL COMMENTS including Moulage Information
Severe head injury which needs neurosurgery and further ICU care

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G7. Hydrogen Sulfide Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
123	93	59	22/min	89	Unresp	1	1	1	Seizure

M		**A**	Hayfever
I	Inhalation of H2S	**M**	Antihistamine
S	Seizures and respiratory distress, cyanosis	**P**	
T	<c> **M** N/A	**L**	
	A **A** Basic airway management	**E**	
	B **R** Oxygen provided once removed from hazard	**C**	Unconscious with seizure
	C **C** IV/IO access as required	**R**	Increased (RR22) and laboured / distressed
	D **H** No anticonvulsants given as seizures stopped spontaneously	**E**	Inflammed and dilated
	E **E** N/A	**S**	Normal
		S	Cyanosed

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Extracted from hazard, and left in well ventilated area.
Oxygen administered once Medics arrive.
No anticonvulsants given as seizures stopped spontaneously.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	105	85	24/min	91	Pain	1	2	3	Signs of cerebral irriation

List of injuries (or disease findings):

Hydrogen sulfide exposure with CNS features and respiratory distress
Minor head injury due to collapse - bruising to front of face / nose (CT if done - normal)

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1hr	Patient remains cerebrally irritated
+2hr	Patient dependent on oxygen with potential pulmonary oedema
	On recognition of worsening oxygenation - consideration to ventilated patient (patient's level of consciousness prevents CPAP)
+1d	Oxygenation improves with ventilation with PEEP. Trial of extubation is successful but with some continuing confusion / amnesia (GCS 14) and further monitoring
+3d	Slow improvement

EXPECTED OUTCOME OF CASE

Patient slowly improves with neuro rehab and chest physio to improve respiratory function.

Decontamination is not specifically required is exposure to gas only - however removal of clothing as a T1 patient is recommended.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Arterial Blood Gas pH 7.21 pCO2 6.7 pO2 11.2 (on 10L O2) pO2 7.2 (air) BXS - 8.1 Bicarb 22 Lactate 4.5 Normal biochemistry Hb 132 WCC 14.1 (neutrophilia) Plat 112	Chest XR shows early pulmonary oedema CT head - normal XR facial (if done) - # nose	

ADDITIONAL COMMENTS including Moulage Information

Patient cyanosed.
Bruising over the bridge of the nose.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G8. Hydrogen Sulfide Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
121	100	61	30/min	92	Unresp	1	1	1	Seizure

M		
I	Inhalation of H2S / fragmentation injury	
S	Seizures and respiratory distress	
T	**<c>** **M**	N/A
	A **A**	Basic airway management
	B **R**	Oxygen provided once removed from hazard
	C **C**	IV/IO access as required
	D **H**	No anticonvulsants given as seizures stopped spontaneously
	E **E**	Fragmentation injury to right chest

A	Nil
M	Nil
P	
L	
E	
C	Sudden loss of consciousness, seizure (< 1 min)
R	Increased (RR30)
E	Inflamed and dilated
S	Normal
S	Sweaty

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Extracted from hazard, and left in well ventilated area.
Oxygen administered once Medics arrive.
Pain relief once patient is more alert.

Decontamination not required if gas exposure - although removal of clothing recommended.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
105	108	85	22	98	Verbal	3	4	6	Post ictal and slowly improving

List of injuries (or disease findings):

Hydrogen sulfide exposure with short loss of consciousness
Fragmentation injury to right chest - pneumothorax (not tension)
Small pupils (size 2mm) if opioid analgesia given

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+30min	Post seizure and now responding to pain
+1hr	Patient more conscious and in pain due to chest wound
+2hr	Patient at MTF will require a chest drain due to traumatic pneumothorax
+2d	Repeat CXR shows good chest expansion. Chest drain removed

EXPECTED OUTCOME OF CASE

Patient slowly improves with chest drain and removed at Day 2

No significant sequelae from H2S exposure.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Arterial Blood Gas pH 7.51 pCO2 2.7 pO2 22.2 (on 10L O2) pO2 12.2 (air) BXS - 1.1 Bicarb 24 Lactate 1.5 Normal biochemistry Hb 122 WCC 10.1 Plat 212	Chest XR shows right pneumothorax with 50% collapse but no midline shift (small foreign body < 1cm in mid zone) CT chest (if done) - right pneumothorax with 50% collapse but no midline shift, small haemothorax and mid zone contusions, small foreign body < 1cm in mid zone, central pulmonary great vessels appear intact. Post-chest drain chest XR - well positioned chest drain and 20% collapse Day 2 chest XR - well expanded lung. 5cm area consistent with contusion or infection near to foreign body (if conservative management).	

ADDITIONAL COMMENTS including Moulage Information

Patient initially cyanosed.
1cm right chest wall wound (mid area of thorax)

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G9. Hydrogen Sulfide Non-Survivor—Very Severe)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
52	89	41	A	80	Unresp	1	1	1	

M		**A**	Nil
I	Inhalation of H2S	**M**	Nil
S	Seizures then agonal breathing	**P**	
T	<c> **M** N/A	**L**	
	A **A** Basic airway management with agonal breathing	**E**	See scenario
	B **R** Oxygen provided once removed from hazard	**C**	Sudden loss of consciousness, seizure (2 mins)
	C **C** IV/IO access as required	**R**	Agonal breathing (gasping)
	D **H** Unconscious	**E**	Dilated
	E **E**	**S**	Normal
		S	Cyanosed

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Extracted from hazard, and left in well ventilated area.
Bag valve mask ventilation with airway adjunct and oxygen
Return on spontaneous respiration after 10 minutes
(Pre-hospital intubation and ventilation depending on pre-hospital response team)

Decontamination not required if gas exposure - although removal of clothing recommended.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
124	92	52	18/min	94	Unresp	1	1	1	

List of injuries (or disease findings):

Hydrogen sulfide exposure
Secondary hypoxic brain injury

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+10min	Seizure with possible respiratory arrest
+30min	Breathing support with return of respiration after 10 minutes
+1hr	Patient spontaneously breathing but unconscious (GCS 3)
	Either pre-hospital or hospital intubation and ventilation due to unconscious

EXPECTED OUTCOME OF CASE

Patient has severe hypoxic brain injury with a failure to respond to treatment. Serial CT shows loss of grey-white matter differentiation. Failure to extubate patient - decorticate posturing with myoclonus.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Arterial Blood Gas pH 7.22 pCO2 8.7 pO2 18.2 (on 10L O2) pO2 10.2 (air) BXS - 8.1 Bicarb 20 Lactate 9.8 Normal biochemistry Troponin 356 (raised) Hb 128 WCC 7.1 Plat 248 ECG - Sinus rhythm with generalised ST depression.	Chest XR normal CT head (on arrival) - normal, no bleed. CT head (> 24 hours) - loss of grey-white matter differentiation - consistent with severe hypoxic brain injury.	
ADDITIONAL COMMENTS including Moulage Information		
Patient initially cyanosed.		

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template G10. Hydrogen Sulfide Non-Survivor—Very Severe with Fragmentation Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
65	162	92	A	88	Unresp	1	1	1	

M

I Inhalation of H2S / fragmentation injury to head

S Unconscious with respiratory depression / arrest

T <c> **M** N/A

A	**A**	Basic airway management with agonal breathing
B	**R**	Oxygen provided once removed from hazard
C	**C**	IV/IO access as required
D	**H**	Unconscious / severe open head injury
E	**E**	Multiple fragment wounds

A	Nil
M	Nil
P	
L	
E	See scenario
C	Unconsciousness
R	Agonal breathing (gasping) / arrest
E	Dilated
S	Normal
S	Cyanosed

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

CPR if signs of life or decision to start

Decontamination not required if gas exposure - although removal of clothing recommended.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
0	0	0	0	-	-	-	-	-	

List of injuries (or disease findings):

Hydrogen sulfide exposure
Penetrating head injury
Cardiac arrest

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+10min	Unconscious with agonal breathing
+20min	Respiratory arrest followed by cardiac arrest

EXPECTED OUTCOME OF CASE

Patient has unsurvivable head injury with hyrdrogen sulfide exposure.
Bradycardic PEA.
CPR might be attempted if resources but unsuccessful.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
If CPR continued: Arterial Blood Gas pH 7.19 pCO2 5.7 pO2 28.1 (on 10L O2) pO2 14.2 (air) BXS - 3.1 Bicarb 23 Lactate 3.8	If CPR continued: Chest XR normal ECG - asystole	

ADDITIONAL COMMENTS including Moulage Information
Patient initially cyanosed. Penetrating head injury non-survivable

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

H. Miscellaneous Chemical-Related

1. Operational Stress

2. Heat Injury

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template H1. Operational Stress)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(Suggestion to MEL/MIL scripter: create a story involving one or more explosive chemical munitions affecting the person's unit, leading to the stress reaction)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
126	145	105	35	98	A	4	5	6	

M

I None apparent

S Anxiety

T <c> **M** None

A **A** Normal

B **R** Normal

C **C** Normal

D **H** Normal

E **E** Possible chemical agent exposure

A	NKDA
M	Prozac
P	History of depression
L	Breakfast
E	
C	Normal, but agitated
R	RR 35
E	Normal
S	Normal
S	Sweaty

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

No first aid given.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	148	100	36	99	A	4	5	6	

List of injuries (or disease findings):

Operational stress

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+00:15H	Panic attack after explosion (others in unit affected by chemical agent)
+1:00H to +2:00	VS normalize and feeling better after reassurance and 1mg lorazepam. Discharged safely with behavioral health follow-up.

EXPECTED OUTCOME OF CASE

Gross contamination requiring decontamination. Acute stress. Symptoms will settle with reassurance.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

ADDITIONAL COMMENTS including Moulage Information
IPE

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template H2. Heat Injury)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☑ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☑ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
136			30		A	4	5	6	Temperature, BP, and oxygen saturation unobtainable while in IPE

M	Prolonged time spent in IPE, heat stress, failure to take in adequate amounts of fluid.	**A**	None known
I	Heat Exhaustion	**M**	None known
S	Headache, nausea, weakness, fatigue.	**P**	No relevant PMH; history difficult to obtain while in IPE
T	<c> **M** None	**L**	Breakfast 4 hours ago
	A **A** Patient wearing protective mask; airway apparently intact	**E**	
	B **R** Tachypneic	**C**	Conscious; communicating through protective mask.
	C **C** Tachycardic	**R**	Tachypneic
	D **H** None	**E**	Unable to assess with protective mask in place.
	E **E** Patient in full chemical protective suit; further assessment delayed until decontaminated	**S**	Unable to access while in PPE
		S	Appears to be sweating profusely, as observed through mask eyepieces

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Patient arrived via CASEVAC; no treatment provided prior to movement.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
140	88	53	32	97 (RA)	A	4	5	6	T = 39.4C

List of injuries (or disease findings):

After decontamination and movement into MTF exam reveals--

Dry mucous membranes
Weak pulses
Delayed capillary refill (4 sec)
Tenting of skin
Decreased urine output

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

H-hour	Chemical attack; patient dons IPE.
H+25 min	Arrives at R1 facility via CASEVAC
H+45 min	Decontamination process begins (delayed due to priority triage of sicker patients)
H+ 1 hour	Decontamination completed.
H+ 75 min	IV started and 1 L of Ringer's Lactate or Normal Saline should be administered over an hour or less. Serum electrolytes should be monitored. Patient should be placed in a cool environment if possible.
H+ 2 hrs	Maintenance IVFs should be provided. Urine outputs should be monitored.

EXPECTED OUTCOME OF CASE

Successfully managed at R1 facility and returned to unit.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Na+ 150 mEq/L K+ 3.3 mEq/L Cl- 111 mEq/L HCO3- 24 mEq/L BUN 37 mg/dl Creatinine 1.7 mg/dl CBC (if obtained): WBC 9.4x10^9 /l Neutophils 4.4x10^9 /l Haemoglobin 162 g /l Platelets 402x10^9 /l	None required.	

ADDITIONAL COMMENTS including Moulage Information
IPE

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

I. Radiation Injury Simulated Patient Files

1. **Radiation Survivor—Worried Well (no radiation dose)**

2. **Radiation Survivor—Cutaneous Burn and Worried (no radiation dose)**

3. **Radiation Survivor—Whole-Body Radiation Injury (1–3 Gy)**

4. **Radiation Survivor—Whole-Body Radiation Injury (1–3 Gy) with Contamination**

5. **Radiation Survivor—Whole-Body Radiation Injury (3–7 Gy)**

6. **Radiation Survivor—Whole-Body Radiation Injury (7+ Gy)**

7. **Radiation Non-Survivor—Whole-Body Radiation Injury (7+ Gy)**

8. **Radiation Survivor—Whole-Body Radiation Injury (1–3 Gy) and Cutaneous Injury (2–15 Gy)**

9. **Radiation Survivor—Whole-Body Radiation Injury (3–7 Gy) and Cutaneous Injury (15–40 Gy)**

10. **Radiation Survivor—Whole-Body Radiation Injury (3–7 Gy) and Cutaneous Injury (40–550 Gy)**

11. **Radiation Non-Survivor—Whole-Body Radiation Injury (7+ Gy) and Cutaneous Injury (550+ Gy)**

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I1. Radiation Survivor—Worried Well (no radiation dose))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(to MEL/MIL scripter: suggest creating a story in which the person might reasonably think they were exposed, even though they were not actually exposed)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	5	6	

M

I None

S Early emesis or some episodes of vomiting, tachycardia

T <c> **M** None

A **A** Clear

B **R** Clear

C **C** Normal

D **H** None

E **E** None

A	None
M	None
P	None
L	-
E	None
C	Normal, nervous
R	Tachypnoea
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Not required

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	5	6	

List of injuries (or disease findings):

Emesis, vomiting

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1h	Emesis, vomiting
+2h	Emesis, vomiting
+3h	Emesis, vomiting

EXPECTED OUTCOME OF CASE

Individual will survive, but requires psychological support. In a radiological situation individuals may believe they were exposed, but they were not (worried well, ww). Knowing about the exposure via mass-media might induce unspecific symptoms such as emesis or vomiting after receiving indications of released radioactivity.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 7 /nl Granulocytes: 4.5 /nl Thrombocytes: 200 /nl		

ADDITIONAL COMMENTS including Moulage Information
Patient appears distressed, panicked, unable to settle in one place. Constantly asking questions, requesting additional tests

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I2. Radiation Survivor—Cutaneous Burn and Worried (no radiation dose))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

No rad exposure, but local cutaneous injury caused by thermal overexposure (e.g. burned on a hot pipeline in a NPP). Also has some reason to believe was exposed to radiation -- worried well.

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	5	6	

M		
I	None	
S	early emesis or some episodes of vomiting	
T	**<c>** **M**	None
	A **A**	Clear
	B **R**	Clear
	C **C**	Normal
	D **H**	None
	E **E**	None

A	None
M	None
P	None
L	-
E	
C	Normal, nervous
R	Tachypnoea
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Analgetics; treatment of the cutaneous wound

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	5	6	

List of injuries (or disease findings):

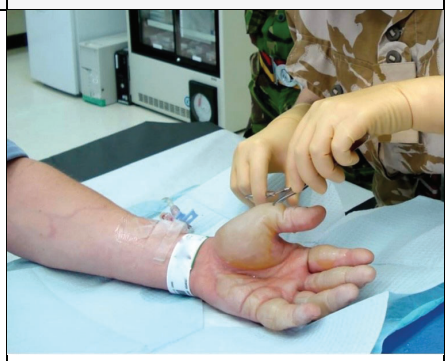
Emesis, eventually vomiting
Local cutaneous wound (heat)

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1h	emesis, vomiting

EXPECTED OUTCOME OF CASE

Individual will survive, but the local cutaneous wound must be treated. Needs reassurance related to suspected rad exposure.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 7 /nl Granulocytes: 4.5 /nl Thrombocytes: 200 /nl		

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I3. Radiation Survivor—Whole-Body Radiation Injury (1–3 Gy))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(situation details should provide a reason the person is presenting to medical care, e.g., suspected exposure)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	99%	Alert	4	5	6	Patient upon presentation is contaminated and no signs or symptoms.

M		**A**	None
I	Irradiation, contamination	**M**	None
S	Mild nausea, does not feel well	**P**	None
T	<c> **M** Normal	**L**	-
	A **A** Clear	**E**	
	B **R** Clear	**C**	Normal, nervous
	C **C** Normal	**R**	Tachypnoea, mild initial
	D **H** None	**E**	Normal
	E **E** Exposure with ionizing radiation	**S**	Normal
		S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Decontamination. If the plume and geographical information is known, may send to R1 for evaluation. May consider giving anti-emetic.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
95	138	80	20/min	99%	Alert	4	5	6	Patient does not feel well, maybe "something he ate"; has nausea and some abdominal discomfort

List of injuries (or disease findings):

Worsening nausea and abdominal discomfort, a little anxious.
Give anti-emetic and monitor.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2:00H	Some nausea and upset stomach
+4:30H	Emesis, consider IV fluids, consider from radiation exposure
+2D	Convalescence on Day 2

EXPECTED OUTCOME OF CASE

Individual will survive (1-2 Gy dose) with supportive care and eventual return to duty. If G-CSF was available could be given but young, healthy individuals can rebound quickly in the exposure range.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Complete Blood Cell count and differential - Normal	None	

ADDITIONAL COMMENTS including Moulage Information

No wounds, make him look "sick", if you can...hold abdomen, bent over a bit, food and water aversion

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I4. Radiation Survivor—Whole-Body Radiation Injury (1–3 Gy) with Contamination)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☐ Chemical ☐ Biological ☑ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear event. History of contamination via inhalation.

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	5	6	Patient upon presentation is contaminated and no signs or symptoms.

M		**A**	None
I	Irradiation + inhalation of radionuclides	**M**	None
S	Mild nausea, does not feel well	**P**	None
T	<c> **M** None	**L**	-
	A **A** Clear	**E**	
	B **R** Clear	**C**	Normal, nervous
	C **C** Normal	**R**	Tachypnoea
	D **H** None	**E**	Normal
	E **E** Exposure with ionizing radiation + incorporation	**S**	Normal
		S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; radionuclide decorporation therapy

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	5	6	

List of injuries (or disease findings):

Worsening nausea and abdominal discomfort, watering mouth and swallowing to avoid vomiting. A little anxious.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2:00H	Worsening nausea and upset stomach; watering mouth and frequent swallowing to avoid vomiting
+4:00H	Emesis, consider IV fluids, consider from radiation exposure
+2d	Convalescence on day 2

EXPECTED OUTCOME OF CASE

Individual will survive, but requires intensive care to give early radionuclide decorporation therapy, to prevent ongoing accumulation or dose and to decrease the risk to develop cancer years after exposure. If not evacuated to receive decorporation therapy and the exercise can accommodate a multi-day story, this patient could begin to get worse over time.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 1.5 /nl Granulocytes: 1 /nl Thrombocytes: 100 /nl		

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I5. Radiation Survivor—Whole-Body Radiation Injury (3–7 Gy))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS ☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear event without contamination

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	4	6	

M			
I	Irradiation		
S	Immediate nausea and vomiting		
T	**<c>**	**M**	None
	A	**A**	Clear
	B	**R**	Clear
	C	**C**	Normal
	D	**H**	None
	E	**E**	Exposure with ionizing radiation

A	None
M	None
P	None
L	-
E	
C	Normal, nervous
R	Tachypnoea
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; analgetics

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	4	6	

List of injuries (or disease findings):

Immediate nausea and upset stomach; watering mouth and frequent swallowing to avoid vomiting

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+20min	Immediate nausea and vomiting
+3h	Massive lymphocyte drop, continued nausea and vomiting
+1d	Granulocytosis, continued nausea and vomiting
+4d	Painful cramps, diarrhea, dizziness, aching joints, fever, lack of appetite, sores in mouth/throat, chills
+30d	Convalescence

EXPECTED OUTCOME OF CASE

Individual will survive, but requires intensive care.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 0.7 /nl Granulocytes: 0.5 /nl Thrombocytes: 80 /nl		

ADDITIONAL COMMENTS including Moulage Information
Vomit on uniform

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I6. Radiation Survivor—Whole Body Radiation Injury (7+ Gy))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T4

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear event without contamination

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	100	70	12/min	94%	Verbal	3	3	5	

M			
I	Irradiation		
S	Immediate nausea and vomiting, including dry heaves		
T	<c> **M** None		
	A **A** Clear		
	B **R** Bradypnoea		
	C **C** Shock		
	D **H** Severe dizziness		
	E **E** Exposure with ionizing radiation		
		A	None
		M	None
		P	None
		L	-
		E	
		C	Severe dizziness
		R	Bradypnoea
		E	Normal
		S	Normal
		S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; analgetics

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	110	70	12/min	94%	Verbal	3	3	5	

List of injuries (or disease findings):

Immediate nausea and upset stomach; watering mouth and frequent swallowing to avoid vomiting.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+20min	Immediate nausea and vomiting
+3h	Massive lymphocyte drop, continued nausea and vomiting
+1d	Granulocytosis, continued nausea and vomiting
+4d	Granulo- and thrombopenia, painful cramps, diarrhea, dizziness, aching joints, fever, lack of appetite, sores in mouth/throat, chills
+30d	Convalescence

EXPECTED OUTCOME OF CASE

Individual will survive with prompt medical support, but will have a long convalescence and will require substantial care.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 0.3 /nl Granulocytes: 0.2 /nl Thrombocytes: 70 /nl		

ADDITIONAL COMMENTS including Moulage Information

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I7. Radiation Non-Survivor—Whole Body Radiation Injury (7+ Gy))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T4

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS ☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear event without contamination

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	100	70	12/min	94%	Verbal	3	3	5	

M			
I	Irradiation		
S	Immediate nausea and vomiting, including dry heaves		
T	**<c>** **M** None		
	A **A** Clear		
	B **R** Bradypnoea		
	C **C** Shock		
	D **H** Severe dizziness		
	E **E** Exposure with ionizing radiation		

A	None
M	None
P	None
L	-
E	
C	Severe dizziness
R	Bradypnoea
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; analgetics

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	110	70	12/min	94%	Verbal	3	3	5	

List of injuries (or disease findings):

Immediate nausea and upset stomach; watering mouth and frequent swallowing to avoid vomiting.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+20min	Immediate nausea and vomiting
+3h	Massive lymphocyte drop, continued nausea and vomiting
+1d	Granulocytosis, continued nausea and vomiting
+4d	Granulo- and thrombopenia, painful cramps, diarrhea, dizziness, aching joints, fever, lack of appetite, sores in mouth/throat, chills
+1-35d	Death on day 1 through day 35 based on dose

EXPECTED OUTCOME OF CASE

Individual will die, due to the level of radiation.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 0.3 /nl Granulocytes: 0.2 /nl Thrombocytes: 70 /nl		

ADDITIONAL COMMENTS including Moulage Information
Vomit on uniform

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I8. Radiation Survivor—Whole-Body Radiation Injury (1–3 Gy) and Cutaneous Injury (2–15 Gy))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☐ Chemical ☐ Biological ☑ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	5	6	

M			
I	Irradiation		
S	Mild nausea, does not feel well		
T	**<c>** **M** None		
	A **A** Clear		
	B **R** Clear		
	C **C** Normal		
	D **H** None		
	E **E** Exposure with whole body and local ionizing radiation		

A	None
M	None
P	None
L	-
E	
C	Normal, nervous
R	Tachypnoea
E	Normal
S	Normal
S	Local erythema at doses > 5 Gy

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; analgetics

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	5	6	

List of injuries (or disease findings):

Worsening nausea and abdominal discomfort, watering mouth and swallowing to avoid vomiting. A little anxious.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2:15H	Worsening nausea and upset stomach; watering mouth and frequent swallowing to avoid vomiting
+4:30H	Emesis, consider IV fluids, consider from radiation exposure
+2d	Convalescence from WBI
+3d	Cutaneous symptoms resolve

EXPECTED OUTCOME OF CASE

Individual will survive, but requires intensive care and local treatment of the cutaneous wound.

Cutaneous: 12 hours to 5 weeks post exposure: erythema, slight edema, possible increased pigmentation; 6 to 7 weeks post exposure: dry desquamation

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 1.5 /nl Granulocytes: 1 /nl Thrombocytes: 100 /nl		

ADDITIONAL COMMENTS including Moulage Information
Erythema in a few places

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I9. Radiation Survivor—Whole-Body Radiation Injury (3–7 Gy) and Cutaneous Injury (15–40 Gy))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☐ Chemical ☐ Biological ☑ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	4	6	

M			
I	Irradiation		
S	Immediate nausea and vomiting, immediate skin itching		
T	**<c>** **M** None		
	A **A** Clear		
	B **R** Clear		
	C **C** Normal		
	D **H** None		
	E **E** Whole and local exposure with ionizing radiation		
		A	None
		M	None
		P	None
		L	-
		E	
		C	Normal, nervous
		R	Tachypnoea
		E	Normal
		S	Normal
		S	Local erythema and itching

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; analgetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	4	6	

List of injuries (or disease findings):

Immediate nausea and upset stomach; watering mouth and frequent swallowing to avoid vomiting; local cutaneous injury

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+20min	Immediate nausea and vomiting
+3h	Massive lymphocyte drop, continued nausea and vomiting
+1d	Granulocytosis, continued nausea and vomiting
+4d	Painful cramps, diarrhea, dizziness, aching joints, fever, lack of appetite, sores in mouth/throat, chills
+30d	Whole-Body: Convalescence

EXPECTED OUTCOME OF CASE

Individual will survive, but requires intensive care and local treatment of the cutaneous injury.

5 to 6 weeks post exposure: subcutaneous tissue edema, blisters, moist desquamation

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 0.7 /nl Granulocytes: 0.5 /nl Thrombocytes: 80 /nl		

ADDITIONAL COMMENTS including Moulage Information
Erythema in big patches Vomit on uniform?

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I10. Radiation Survivor—Whole-Body Radiation Injury (3–7 Gy) and Cutaneous Injury (40–550 Gy))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☐ Chemical ☐ Biological ☑ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	4	6	

M			
I	Irradiation		
S	Immediate nausea and vomiting, skin painful and tingling		
T	**<c>** **M** None		
	A **A** Clear		
	B **R** Clear		
	C **C** Normal		
	D **H** None		
	E **E** Whole and local exposure with ionizing radiation		

A	None
M	None
P	None
L	-
E	None
C	Normal, nervous
R	Tachypnoea
E	Normal
S	Normal
S	Painful, tingling, erythema

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; analgetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	A	4	4	6	

List of injuries (or disease findings):

Immediate nausea and vomiting, and localized skin pain and tingling

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+20min	Immediate nausea and vomiting and pain at site of cutaneous injury
+3h	Massive lymphocyte drop
+1d	Granulocytosis, continued nausea, vomiting, and tingling
+4d	Painful cramps, diarrhea, dizziness, aching joints, fever, lack of appetite, sores in mouth/throat, chills
+7d	Erythema, blisters, edema, pigmentation, erosions, ulceration, severe pain; continued symptoms from +4d
+30d	Whole-Body: convalescence on day 30
+70d	Severe late effects of cutaneous injury

EXPECTED OUTCOME OF CASE

Individual will survive, but requires intensive care and local treatment of the cutaneous injury.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 0.7 /nl Granulocytes: 0.5 /nl Thrombocytes: 80 /nl		

ADDITIONAL COMMENTS including Moulage Information
Erythema Vomit on uniform

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template I11. Radiation Non-Survivor—Whole-Body Radiation Injury (7+ Gy) and Cutaneous Injury (550+ Gy))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T4

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☐ Chemical ☐ Biological ☑ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	100	70	12/min	94%	Verbal	3	3	5	

M			
I	Irradiation		
S	Immediate nausea and vomiting, including dry heaves; immediate skin pain, tingling, swelling		
T	**<c>** **M** None		
	A **A** Clear		
	B **R** Bradypnoea		
	C **C** Shock		
	D **H** Severe dizziness		
	E **E** Whole body and local exposure with ionizing radiation		

A	None
M	None
P	None
L	-
E	None
C	Severe dizziness
R	Bradypnoea
E	Normal
S	Normal
S	Painful, tingling, swelling

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; analgetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	100	70	12/min	94%	Verbal	3	3	5	

List of injuries (or disease findings):

Whole body: Immediate nausea and vomiting, including dry heaves
Cutaneous: Immediate pain, tingling, swelling

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+20min	Immediate nausea and vomiting, immediate pain, tingling and swelling at cutaneous injury site
+3h	Massive lymphocyte drop, continued nausea, vomiting, pain, tingling, and swelling
+1d	Blisters, early ischemia, substantial pain, granulocytosis
+4d	Granulo- and thrombopenia, painful cramps, diarrhea, dizziness, aching joints, fever, lack of appetite, sores in mouth/throat, chills
+14d	Tissue necrosis
+1-35d	Death on day 1 through day 35 based on dose

EXPECTED OUTCOME OF CASE

Individual will die, but depending on the support and the individual´s radiosensitivity there is a chance to survive at doses of 7-8 Gy. Local radiation exposure will result in a necrosis and new treatment regimens such as mesenchymal stem cells will be required.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haemoglobin: 15 g/dl Leukocytes: 0.3 /nl Granulocytes: 0.2 /nl Thrombocytes: 70 /nl		

ADDITIONAL COMMENTS including Moulage Information
Erythema and swelling of skin Clammy and pale skin Vomit on uniform

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

J. Nuclear Burn Simulated Patient Files

1. Nuclear Burn Survivor (1–10 %BSA)

2. Nuclear Burn Survivor (10–20 %BSA)

3. Nuclear Burn Survivor (20–30 %BSA)

4. Nuclear Burn Survivor (≥ 30 %BSA)

5. Nuclear Burn Non-Survivor (≥ 30 %BSA)

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template J1. Nuclear Burn Survivor (1–10 % BSA))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	100%	Alert	4	5	6	

M

I None

S 1st (superficial), 2nd (partial thickness), and possible 3rd degree (full thickness) burns; electrolyte imbalance; pain

T <c> **M** None

A **A** Clear

B **R** Clear

C **C** Normal

D **H** None

E **E** Nuclear burn 1-3°

A None

M None

P None

L -

E None

C Normal, nervous

R Tachypnoea

E Normal

S Normal

S Erythema, edema, blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; analgetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100/min	140	90	20/min	100%	A	4	5	6	

List of injuries (or disease findings):

1-3° (superficial, partial, and minimal full thickness) burns over 1-10 % of the body area, no combined injury; electrolyte imbalance, pain

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+ 15 d	Return to duty

EXPECTED OUTCOME OF CASE

Return to duty on day 15

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haematocrit: 45% Leukocytes: 7 /nl Granulocytes: 4.5 /nl Thrombocytes: 200 /nl		

ADDITIONAL COMMENTS including Moulage Information

Burns 1-10% of the body. Mostly first or second degree, minimal 3rd degree. Burns should be worse where skin is not covered. Erythema, edema, blisters
Burnt uniform?

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template J2. Nuclear Burn Survivor (10–20 % BSA))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	145	90	20/min	99%	Alert	4	5	6	

M

I None

S Upper GI discomfort; 1st, 2nd, and possible 3rd degree (superficial, partial, full thickness) burns; electrolyte imbalance; increased pain

T <c> **M** None

A **A** Clear

B **R** Clear

C **C** Normal

D **H** None

E **E** Nuclear burn 1-3°

A	None
M	None
P	None
L	-
E	None
C	Nervous
R	Tachypnoea
E	Normal
S	Normal
S	Erythema, edema, blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; analgetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	145	90	20/min	99%	Alert	4	5	6	

List of injuries (or disease findings):

1-3° burns (superficial, partial, full thickness) over 10-20% of the body area, electrolyte imbalance, pain

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+ 23 d	Return to duty

EXPECTED OUTCOME OF CASE

Return to duty on day 23

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haematocrit: 48% Leukocytes: 7 /nl Granulocytes: 4.5 /nl Thrombocytes: 200 /nl		

ADDITIONAL COMMENTS including Moulage Information

Burns 10-20% of the body. Mostly first or second degree, minimal 3rd degree. Burns should be worse where skin is not covered. Erythema, edema, blisters
Burnt uniform?

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template J3. Nuclear Burn Survivor (20–30 % BSA))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	110	80	21/min	98%	Alert	4	5	6	

M

I None

S Upper GI discomfort; 1st, 2nd, and possible 3rd degree (superficial, partial, full thickness) burns; fluid loss; compromise of the immune system; pain

T <c> **M** None

A **A** Clear

B **R** Clear

C **C** Reduced blood volume / tachycardia

D **H** None

E **E** Nuclear burn 1-3°

A	None
M	None
P	None
L	-
E	
C	Nervous
R	Tachypnoea
E	Normal
S	Normal
S	Erythema, edema, blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; analgetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	110	80	21/min	98%	Alert	4	5	6	

List of injuries (or disease findings):

1-3° burns (superficial, partial, full thickness) over 20-30% of the body area, decreased renal blood flow, electrolyte imbalance, fluid loss, immune system depressed, pain

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+ 33 d	50% convalescence
+ 33 d	50% return to duty

EXPECTED OUTCOME OF CASE

50% convalescence on day 33; 50% return to duty on day 33

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haematocrit: 50% Leukocytes: 7 /nl Granulocytes: 4.5 /nl Thrombocytes: 200 /nl		

ADDITIONAL COMMENTS including Moulage Information

Burns 20-30% of the body. Mostly first or second degree, some 3rd degree. Burns should be worse where skin is not covered. Erythema, edema, blisters
Burnt uniform?

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template J4. Nuclear Burn Survivor (≥ 30 % BSA))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	90	65	24/min	95%	Pain	3	3	4	

M

I None

S Upper GI discomfort; 1st, 2nd, and possible 3rd degree (superficial, partial, full thickness) burns; hypovolemia; shock resulting from blood pressure decrease; cardiac distress; toxemia; multiple organ failure

T <c> **M** None

A	**A**	Burned airways
B	**R**	Hypoxia
C	**C**	Shock
D	**H**	Clouded awareness
E	**E**	Nuclear burn 1-3°

A	None
M	None
P	None
L	-
E	
C	Clouded awareness
R	Tachypnoea
E	Normal
S	Normal
S	Erythema, edema, blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intensive-care medicine + intubation; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130/min	90	65	24/min	95%	P	3	3	4	

List of injuries (or disease findings):

1-3° burns (superficial, partial, full thickness) over >=30% of the body area, electrolyte imbalance, fluid loss, immune system depressed, pain, upper GI discomfort, hypovolemia, decreased renal blood flow, shock resulting from blood pressure decrease, cardiac distress, toxemia, multiple organ failure

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+ 44 - 51 d	Convalescence

EXPECTED OUTCOME OF CASE

Convalescence between days 44 and 51

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haematocrit: 55% Leukocytes: 12 /nl Granulocytes: 10 /nl Thrombocytes: 100 /nl		

ADDITIONAL COMMENTS including Moulage Information

Burns 30+% of the body. Mostly first or second degree, with significant patches of 3rd degree.
Burns should be worse where skin is not covered. Erythema, edema, blisters
Burnt uniform?

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template J5. Nuclear Burn Non-Survivor (≥ 30 % BSA))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T4

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
150	80	50	9/min	89%	Unresp	1	1	1	

M			
I	None		
S	Upper GI discomfort; 1st, 2nd, and possible 3rd degree (superficial, partial, full thickness) burns; hypovolemia; shock resulting from blood pressure decrease; cardiac distress; toxemia; multiple organ failure		
T	**<c>** **M** None		
	A **A** Burned airways		
	B **R** Hypoxia		
	C **C** Shock		
	D **H** Unconsciousness		
	E **E** Nuclear burn 1-3°		

A	None
M	None
P	Unknown
L	-
E	
C	Unconsciousness
R	Bradypnoea
E	Normal
S	Normal
S	Erythema, edema, blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intensive-care medicine + intubation; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
150	80	50	9/min	89%	Unresp	1	1	1	

List of injuries (or disease findings):

1-3° burns (superficial, partial, full thickness) over >=30% of the body area, electrolyte imbalance, fluid loss, shock, immune system depressed, pain, upper GI discomfort, hypovolemia, decreased renal blood flow, shock resulting from blood pressure decrease, cardiac distress, toxemia, multiple organ failure

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+ 10 d	Death

EXPECTED OUTCOME OF CASE

Death on day 10

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haematocrit: 58% Leukocytes: 14 /nl Granulocytes: 12 /nl Thrombocytes: 80 /nl		

ADDITIONAL COMMENTS including Moulage Information

Burns 30+% of the body. Mostly first or second degree, with significant patches of 3rd degree.
Burns should be worse where skin is not covered. Erythema, edema, blisters
Burnt uniform?

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

K. Combined Nuclear Injury Simulated Patient Files

1. **Combined Nuclear Injury—Whole-Body Radiation Injury (1–3 Gy), Burn Injury (20–30 %BSA)**

2. **Combined Nuclear Injury—Whole-Body Radiation Injury (1–3 Gy), Burn Injury (20–30 %BSA), Blast Injury (50–140 kPa)**

3. **Combined Nuclear Injury— Whole-Body Radiation Injury (3–5 Gy), Burn Injury (10–20 %BSA)**

4. **Combined Nuclear Injury— Whole-Body Radiation Injury (5–7 Gy), Burn Injury (1–10 %BSA)**

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template K1. Combined Nuclear Injury—Whole-Body Radiation Injury (1–3 Gy), Burn Injury (20–30 %BSA))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	110	80	21/min	98%	Alert	4	5	6	

M			
I	Irradiation		
S	Mild nausea, upper GI discomfort; 1st, 2nd, and possible 3rd degree burns (superficial, partial, full thickness); fluid loss; pain		
T	**<c>** **M** None		
	A **A** Clear		
	B **R** Clear		
	C **C** Reduced blood volume / tachycardia		
	D **H** None		
	E **E** Exposure with ionizing radiation and heat		

A	None
M	None
P	None
L	-
E	
C	Nervous
R	Tachypnoea
E	Normal
S	Normal
S	Erythema, edema, blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; analgetics; antiemetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	110	80	21/min	98%	Alert	4	5	6	

List of injuries (or disease findings):

1-3° burns(superficial, partial, full thickness) over 20-30% of the body area, electrolyte imbalance, decreased renal blood flow, fluid loss, immune system depressed, pain

Initially mild, and then worsening nausea and abdominal discomfort. After a few hours, watering mouth and frequent swallowing to avoid vomiting

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

immediate	skin pain from burns
+2h	Nausea and upset stomach; watering mouth and frequent swallowing to avoid vomiting
+4:15h	Emesis

EXPECTED OUTCOME OF CASE

Individual will probably survive, but requires intensive care.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haematocrit: 50% Leukocytes: 1.5 /nl Granulocytes: 1 /nl Thrombocytes: 100 /nl		

ADDITIONAL COMMENTS including Moulage Information

Burns 20-30% of the body. Mostly first or second degree, some 3rd degree. Burns should be worse where skin is not covered. Erythema, edema, blisters
Burnt uniform?

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template K2. Combined Nuclear Injury—Whole-Body Radiation Injury (1–3 Gy), Burn Injury (20–30 %BSA), Blast Injury (50–140 kPa))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS ☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	110	80	26/min	97%	Alert	4	5	6	

M		
I	Irradiation	
S	Mild nausea, upper GI discomfort, non-productive cough; 1st, 2nd, and possible 3rd degree burns (superficial, partial, full thickness); fluid loss; pain; earache	
T	**<c>** **M** None	
	A **A** Clear	
	B **R** Dyspnoea	
	C **C** Reduced blood volume, tachycardia	
	D **H** None	
	E **E** Exposure with ionizing radiation, heat and blast	
		A None
		M None
		P None
		L -
		E
		C Nervous
		R Tachypnoea
		E Normal
		S Increased
		S Erythema, edema, blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen; intravenous fluid therapy; analgetics; antiemetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	110	80	26/min	97%	Alert	4	5	6	

List of injuries (or disease findings):

Initially mild, and then worsening nausea and abdominal discomfort. After a few hours, watering mouth and frequent swallowing to avoid vomiting. Non-productive cough, shortness of breath, earache
1-3° burns (superficial, partial, full thickness) over 20-30% of the body area, electrolyte imbalance, fluid loss, immune system depressed

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

imemdiate	earache, skin pain, non-productive cough, shortness of breath
+2:00H	Some nausea and upset stomach
+4:00H	Emesis, consider IV fluids, consider from radiation exposure

EXPECTED OUTCOME OF CASE

Individual will probably survive, but requires intensive care.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haematocrit: 50% Leukocytes: 2.5 /nl Granulocytes: 2 /nl Thrombocytes: 150 /nl		

ADDITIONAL COMMENTS including Moulage Information

Burns 20-30% of the body. Mostly first or second degree, some 3rd degree. Burns should be worse where skin is not covered. Erythema, edema, blisters
Burnt uniform?
Blood from one or both ears

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template K3. Combined Nuclear Injury— Whole-Body Radiation Injury (3–5 Gy), Burn Injury (10–20 %BSA))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	99%	Alert	4	4	6	

M			
I	Irradiation		
S	Nausea, upper GI discomfort; 1st, 2nd, and possible 3rd degree burns (superficial, partial, full thickness); electrolyte imbalance; increased pain.		
T	**<c>** **M** None		
	A **A** Clear		
	B **R** Clear		
	C **C** Normal		
	D **H** None		
	E **E** Exposure with ionizing radiation; burn 1-3°		

A	None
M	None
P	None
L	-
E	
C	Normal, nervous
R	Tachypnoea
E	Normal
S	Normal
S	Erythema, edema, blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; analgetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	99%	Alert	4	4	6	

List of injuries (or disease findings):

Immediate nausea, upper GI discomfort; 1st, 2nd, and possible 3rd degree burns (superficial, partial, full thickness) ; electrolyte imbalance; increased pain

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+40min	Emesis
+3h	Lymphocyte drop, continued nausea and vomiting
+1d	Granulocytosis, continued nausea and vomiting
+4d	Painful cramps, diarrhea, dizziness, aching joints, fever, lack of appetite, sores in mouth/throat, chills

EXPECTED OUTCOME OF CASE

Individual will survive, but requires intensive care.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haematocrit: 48% Leukocytes: 1.7 /nl Granulocytes: 1.5 /nl Thrombocytes: 90 /nl		

ADDITIONAL COMMENTS including Moulage Information

Burns 10-20% of the body. Mostly first or second degree, minimal 3rd degree. Burns should be worse where skin is not covered. Erythema, edema, blisters
Burnt uniform?

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template K4. Combined Nuclear Injury— Whole-Body Radiation Injury (5–7 Gy), Burn Injury (1–10 %BSA))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Nuclear incident

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	140	90	20/min	99%	Alert	4	4	6	

M			
I	Irradiation		
S	Nausea and vomiting, 1st (superficial), 2nd (partial thickness), and possible 3rd degree (full thickness) burns; electrolyte imbalance; pain		
T	**<c>** **M** None		
	A **A** Clear		
	B **R** Clear		
	C **C** Normal		
	D **H** None		
	E **E** Exposure with ionizing radiation + burn 1-3°		

A	None
M	None
P	None
L	-
E	
C	Normal, nervous
R	Tachypnoea
E	Normal
S	Normal
S	Erythema, edema, blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Intravenous fluid therapy; antiemetics; analgetics; treatment of cutaneous injury

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100/min	140	90	20/min	99%	A	4	4	6	

List of injuries (or disease findings):

1-3° burns over 1-10 % of the body area, immediate nausea and vomiting, painful cramps, diarrhea, dizziness, aching joints, fever, lack of appetite, sores in mouth/throat, chills, electrolyte imbalance, pain

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+20min	Continued nausea and vomiting
+3h	Massive lymphocyte drop, continued nausea and vomiting
+1d	Granulocytosis, continued nausea and vomiting
+4d	Painful cramps, diarrhea, dizziness, aching joints, fever, lack of appetite, sores in mouth/throat, chills

EXPECTED OUTCOME OF CASE

Individual will survive, but requires intensive care.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Haematocrit: 45% Leukocytes: 0.7 /nl Granulocytes: 0.5 /nl Thrombocytes: 80 /nl		

ADDITIONAL COMMENTS including Moulage Information

Vomit on uniform.
Burns 1-10% of the body. Mostly first or second degree, minimal 3rd degree. Burns should be worse where skin is not covered. Erythema, edema, blisters
Burnt uniform?

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

L. Anthrax Simulated Patient Files

1. Anthrax Survivor

2. Anthrax Non-Survivor

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template L1. Anthrax Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Previously healthy, no allergies. (MEL/MIL scripter: add some explanation of how the person was exposed 1-14 days ago; explanation must be suitable for inhalational anthrax (e.g., bio attack, or a rare natural exposure such as to contaminated dirt or sheep; for bio attack, incubation period should probably be in the shorter part of the range)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
80	110	70	25/min	95%	A	4	5	6	Non-productive cough, mild chest pain

M		**A**	Penicillin
I	Evolving dyspnea	**M**	1 x Ibuprofen 600 mg
S	Flu-like symptoms, nausea + vomiting, fever / chills	**P**	Previously healthy
T	<c> **M** None	**L**	Unknown
	A **A** Clear / none	**E**	Unknown
	B **R** Oxygen	**C**	Agitated, worried
	C **C** None	**R**	Tachypnea
	D **H** None	**E**	Normal
	E **E** -	**S**	Normal
		S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	100	60	30/min	90%	Alert	4	4	6	

List of injuries (or disease findings):

+Persistent fever;
+Sudden onset of increasing respiratory distress:
(increased chest pain, dyspnea, stridor, cyanosis, and diaphoresis)
+Tachycardia,
+Tachypnea,
+Hypotension,
+Altered neurological status (confusion, syncope,)

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2d	Flu-like symptoms, fever, chills, headache, nonproductive coughs
+4d	Persistent fever; sudden onset of increasing respiratory distress, tachycardia, tachypnea, hypotension, confusion, pleural effusion and likely widening and edemas of the mediastinum
+15d	Resolution of fever, gradual cessation of acute symptoms
+16d	Malaise, weakness
+76d	Return to duty

EXPECTED OUTCOME OF CASE

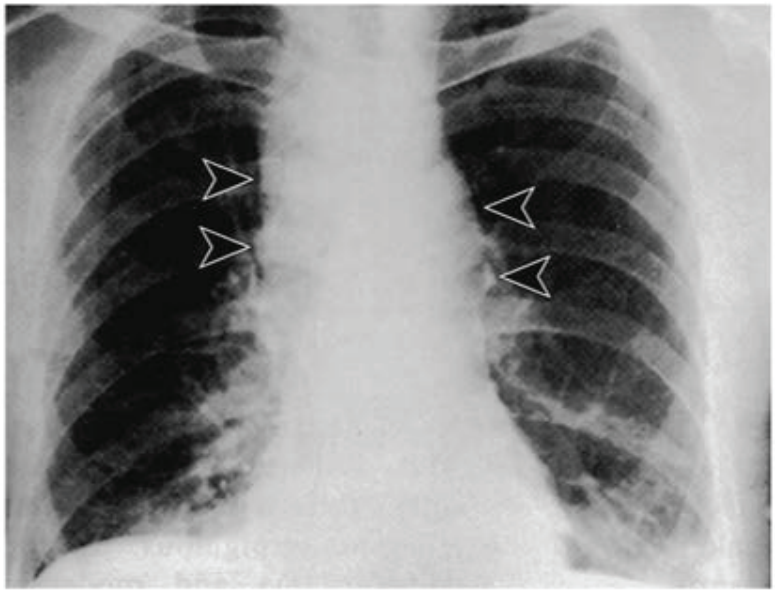
+Resolution of fever, gradual cessation of acute symptoms.
+Extended reconvalesence: Malaise, weakness may last for 60 days.
+Return to duty thereafter.

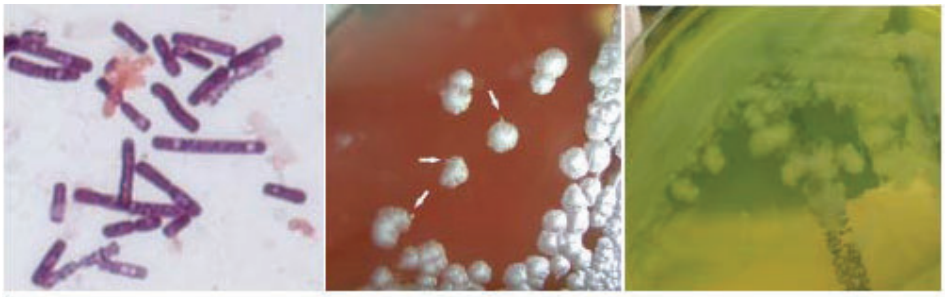
ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
TABLE 1. INITIAL LABORATORY FINDINGS.* **VARIABLE** / **VALUE** Hematologic Hemoglobin (g/dl) 16.1 Hematocrit (%) 46 White-cell count (per mm³) 9,400 Differential count (%) Polymorphonuclear cells 77 Lymphocytes 15 Monocytes 8 Platelet count (per mm³) 109,000 Serum chemical Glucose (mg/dl) 174 Creatinine (mg/dl) 1.1 Urea nitrogen (mg/dl) 20 Sodium (mmol/liter) 132 Potassium (mmol/liter) 3.9 Chloride (mmol/liter) 97 Bicarbonate (mmol/liter) 23 Calcium (mg/dl) 8.7 Albumin (g/dl) 4.0 Total protein (g/dl) 7.3 Total bilirubin (mg/dl) 1.5 Alkaline phosphatase (U/liter) 61 Aspartate aminotransferase (U/liter) 30 Cerebrospinal fluid Appearance of fluid Cloudy Glucose (mg/dl) 57 Protein (mg/dl) 666 Red-cell count (per mm³) 1,375 White-cell count (per mm³) 4,750 Differential count (%) Polymorphonuclear cells 81 Monocytes 19 *To convert the values for glucose to millimoles per liter, multiply by 0.05551. To convert the value for creatinine to micromoles per liter, multiply by 88.4. To convert the value for urea nitrogen to millimoles per liter, multiply by 0.357. To convert the value for calcium to millimoles per liter, multiply by 0.250. To convert the value for bilirubin to micromoles per liter, multiply by 17.1. Blood Cultures: +Growth of B. anthracis (see p. 5) CAVE: Scenario dependent! See attached lab report	Radiology: Chest X-ray (see p. 5): +pleural effusion +likely widening / edemas of the mediastinum	Photo: +Chest X-ray (see p. 5)

ADDITIONAL COMMENTS including Moulage Information
+Scenario dependent: Diagnosis of inhalational Anthrax is difficult and depends also on the laboratory capacity on the theater. The diagnosis of B. anthracis requires an experienced and equipped laboratory. +Blood cultures: Bacterial growth depends on the time of the clinical treatment, i.e. antibiotic treatment.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation





B. anthracis: Gram-Färbung (Links); Wachstum auf Anthrax-Blut Agar (Mitte) und PEMBA Agar (Rechts)

Bundeswehr Institute of Microbiology

Report date:

Microbiological Lab Report

Sender:

Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01BRUSA0S

Collected at:

Received at:

Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
B. anthracis (realtime PCR, dhp61)	**positive**	negative
B. anthracis (realtime PCR, capC, pagA)	**positive**	negative
Other tests		
Bacillus anthracis PA (antigen)	**positive**	negative
Bacterial culture	**positive**	negative
Gram staining (microscopy)	**positive**	negative

Assessment and evaluation

Detection of ***Bacillus anthracis*** **Protective Antigen** in the antigen-enzyme-linked immunosorbent assay (**Ag-ELISA**) in the submitted sample.

Detection of **gram-positive rods** in the gram staining. No detection of spores in the gram staining.

Genomic detection of Bacillus anthracis-specific nucleid acid (target: dhp61) and Bacillus anthracis-**specific virulence factor** (target: pagA) in the submitted sample.

Based on the microbiological findings, there is an **urgent suspicion of anthrax.**

Additional Information

Bacillus anthracis

B. anthracis, the causative agent of anthrax, is a gram-positive sporulating rod with spores being the usual infective form. Incubation period is usually between 1-6 days (although longer periods of up to 60 days have been noted). Anthrax presents as three distinct syndromes depending on route of infection, i.e. cutaneous, gastrointestinal or inhalational, which is the most severe form. Initial symptoms of inhalational anthrax include fever, malaise, fatigue and mild chest discomfort with dry cough which progress rapidly to severe respiratory distress with dyspnea, cyanosis and shock. Death typically occurs within 24 to 36 h after onset of severe symptoms. Many of the effects of anthrax are mediated through a toxin, which consists of three components: the protective antigen (PA), the lethal factor (LF) and the oedema factor (EF). *B. anthracis* is detectable by gram stain, serum levels of PA and anthrax-specific qPCR.

S. Mantel, MD

Major (MC)

SHO for Clinical Microbiology, Virology & Infectious Disease Epidemiology

Dr. G. Genzel, MD

Lieutenant Colonel (MC)

Clinical Microbiologist, Virologist & Infectious Disease Epidemiologist

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template L2. Anthrax Non-Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

Previously healthy, no allergies. (MEL/MIL scripter: add some explanation of how the person was exposed 1-14 days ago; explanation must be suitable for inhalational anthrax (e.g., bio attack, or a rare natural exposure such as to contaminated dirt or sheep; for bio attack, incubation period should probably be in the shorter part of the range)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
83	100	65	26/min	95	Alert	4	4	6	Non-productive cough, mild chest pain

M		**A**	No known drug allergies
I	Evolving dyspnea	**M**	None
S	Flu-like symptoms, nausea + vomiting, fever / chills	**P**	Previous healthy
T	<c> **M** None	**L**	Unknown
	A **A** None	**E**	Unknown
	B **R** Oxygen	**C**	Agitated, worried
	C **C** -	**R**	Tachypnea
	D **H** -	**E**	Normal
	E **E** -	**S**	Normal
		S	Hot

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
85	100	65	26/min	95	Alert	4	5	6	

List of injuries (or disease findings):

+Persistent fever;
+Sudden onset of increasing respiratory distress:
(increased chest pain, dyspnea, stridor, cyanosis, and diaphoresis)
+Tachycardia,
+Tachypnea,
+Hypotension,
+Altered neurological status (confusion, syncope,)

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2d	Flu-like symptoms, fever,chills, headache, nonproductive coughs
+3d	Persistent fever; sudden onset of increasing respiratory distress, tachycardia, tachypnea, hypotension, confusion, pleural effusion and likely widening and edemas of the mediastinum.
+4d	Worsening of symptoms. Hypotension leads to cardiovascular collapse
+5d	Death

EXPECTED OUTCOME OF CASE

Patient passes away on day 5, even if adequate therapy (antibiotics and supportive therapy) was initiated.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

TABLE 1. INITIAL LABORATORY FINDINGS.*

VARIABLE	VALUE
Hematologic	
Hemoglobin (g/dl)	16.1
Hematocrit (%)	46
White-cell count (per mm³)	9,400
Differential count (%)	
Polymorphonuclear cells	77
Lymphocytes	15
Monocytes	8
Platelet count (per mm³)	109,000
Serum chemical	
Glucose (mg/dl)	174
Creatinine (mg/dl)	1.1
Urea nitrogen (mg/dl)	20
Sodium (mmol/liter)	132
Potassium (mmol/liter)	3.9
Chloride (mmol/liter)	97
Bicarbonate (mmol/liter)	23
Calcium (mg/dl)	8.7
Albumin (g/dl)	4.0
Total protein (g/dl)	7.3
Total bilirubin (mg/dl)	1.5
Alkaline phosphatase (U/liter)	61
Aspartate aminotransferase (U/liter)	30
Cerebrospinal fluid	
Appearance of fluid	Cloudy
Glucose (mg/dl)	57
Protein (mg/dl)	666
Red-cell count (per mm³)	1,375
White-cell count (per mm³)	4,750
Differential count (%)	
Polymorphonuclear cells	81
Monocytes	19

*To convert the values for glucose to millimoles per liter, multiply by 0.05551. To convert the value for creatinine to micromoles per liter, multiply by 88.4. To convert the value for urea nitrogen to millimoles per liter, multiply by 0.357. To convert the value for calcium to millimoles per liter, multiply by 0.250. To convert the value for bilirubin to micromoles per liter, multiply by 17.1.

Blood Cultures:
+Growth of B. anthracis (see p. 5)
CAVE: Scenario dependent!

See attached lab report

Radiology:
Chest X-ray:
+pleural effusion
+likely widening / edemas of the mediastinum

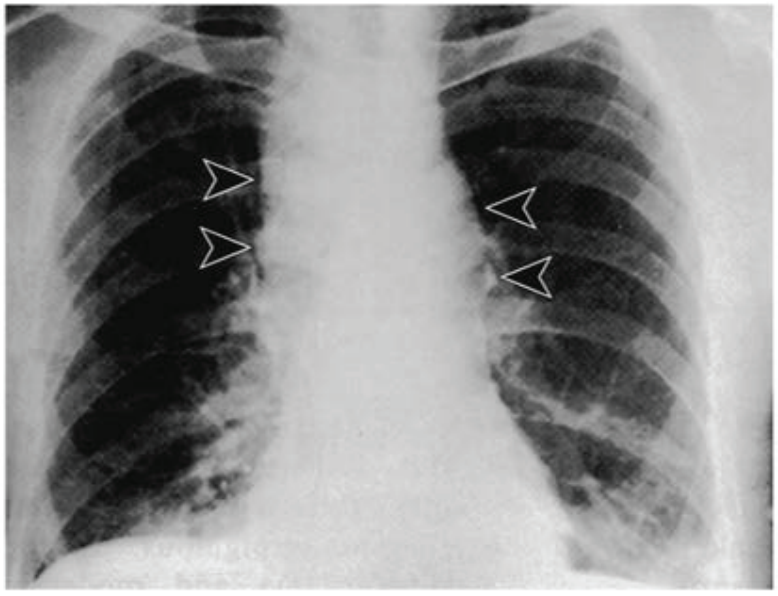
Photo:
+Chest X-ray (see p. 5)

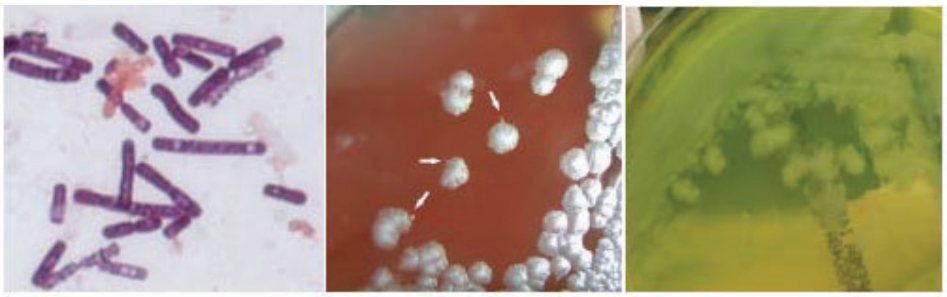
ADDITIONAL COMMENTS including Moulage Information

FOR HANDLING: While Anthrax is NOT contagious, care should be taken with the handling of
+dried blood spills
+waste materials
+fatalities
due to potential spore formation.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation





B. anthracis: Gram-Färbung (Links); Wachstum auf Anthrax-Blut Agar (Mitte) und PEMBA Agar (Rechts)

Bundeswehr Institute of Microbiology

Report date:

Microbiological Lab Report

Sender:

Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01BRUSA0S

Collected at:

Received at:

Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
B. anthracis (realtime PCR, dhp61)	**positive**	negative
B. anthracis (realtime PCR, capC, pagA)	**positive**	negative
Other tests		
Bacillus anthracis PA (antigen)	**positive**	negative
Bacterial culture	**positive**	negative
Gram staining (microscopy)	**positive**	negative

Assessment and evaluation

Detection of ***Bacillus anthracis*** **Protective Antigen** in the antigen-enzyme-linked immunosorbent assay (**Ag-ELISA**) in the submitted sample.

Detection of **gram-positive rods** in the gram staining. No detection of spores in the gram staining.

Genomic detection of Bacillus anthracis-specific nucleid acid (target: dhp61) and Bacillus anthracis-**specific virulence factor** (target: pagA) in the submitted sample.

Based on the microbiological findings, there is an **urgent suspicion of anthrax.**

Additional Information

Bacillus anthracis

B. anthracis, the causative agent of anthrax, is a gram-positive sporulating rod with spores being the usual infective form. Incubation period is usually between 1-6 days (although longer periods of up to 60 days have been noted). Anthrax presents as three distinct syndromes depending on route of infection, i.e. cutaneous, gastrointestinal or inhalational, which is the most severe form. Initial symptoms of inhalational anthrax include fever, malaise, fatigue and mild chest discomfort with dry cough which progress rapidly to severe respiratory distress with dyspnea, cyanosis and shock. Death typically occurs within 24 to 36 h after onset of severe symptoms. Many of the effects of anthrax are mediated through a toxin, which consists of three components: the protective antigen (PA), the lethal factor (LF) and the oedema factor (EF). *B. anthracis* is detectable by gram stain, serum levels of PA and anthrax-specific qPCR.

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M. Botulism Simulated Patient Files

1. Botulism Survivor—Sub-Lethal Dose

2. Botulism Survivor—Lethal Dose

3. Botulism Non-Survivor—Lethal Dose

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template M1. Botulism Survivor—Sub-Lethal Dose)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(note to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ. As designed, the history for this patient is: dinner with colleagues two days ago)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
70	135	80	12/min	100	Alert	4	5	6	Temperature 36,6°C

M

I None

S Visual symptoms; dry mouth; weakness; heavy tongue

T <c> **M** None

A **A** Without pathological finding

B **R** Without pathological finding

C **C** Without pathological finding

D **H** Visual symptoms

E **E** Without pathological finding

A None

M Ramipril 10mg 1-0-0

P High blood pressure

L Breakfast

E Unknown

C Normal

R Normal

E Blurred vision, ptosis, loss of accomodation, mydriasis

S Dry mouth

S Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Reassure patient
Cotton swab drizzled with water (dry mouth), only under supervision
Monitoring of vital signs

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
65	130	80	12/min	100	Alert	4	5	6	Temperature 36,5°C

List of injuries (or disease findings):

See above

Inspection: ptosis, no wounds, struggle moving tongue
Auscultation: lungs/heart: w.p.f., abdomen: hypoactive bowel sounds
Palpation/Percussion: w.p.f.
Neurological examination: no facial nerve paresis, mildly slurred speech, hyposthenia under resistance involving proximal muscles.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+15min	Monitoring on intermediate care unit, Taking blood cultures and blood samples, stool samples
+30min	cCT and MRI
+12hr	Increase in dysphagia, dysphonia and dysathria
+12.5hr	Transfer to the intensive care unit, Intubation readiness
+1d	Start of treatment with Botulism antitoxin ABE for suspected Botulism, stable vital signs
+1d	Laboratory results
+1d	Improvement of symptoms

EXPECTED OUTCOME OF CASE

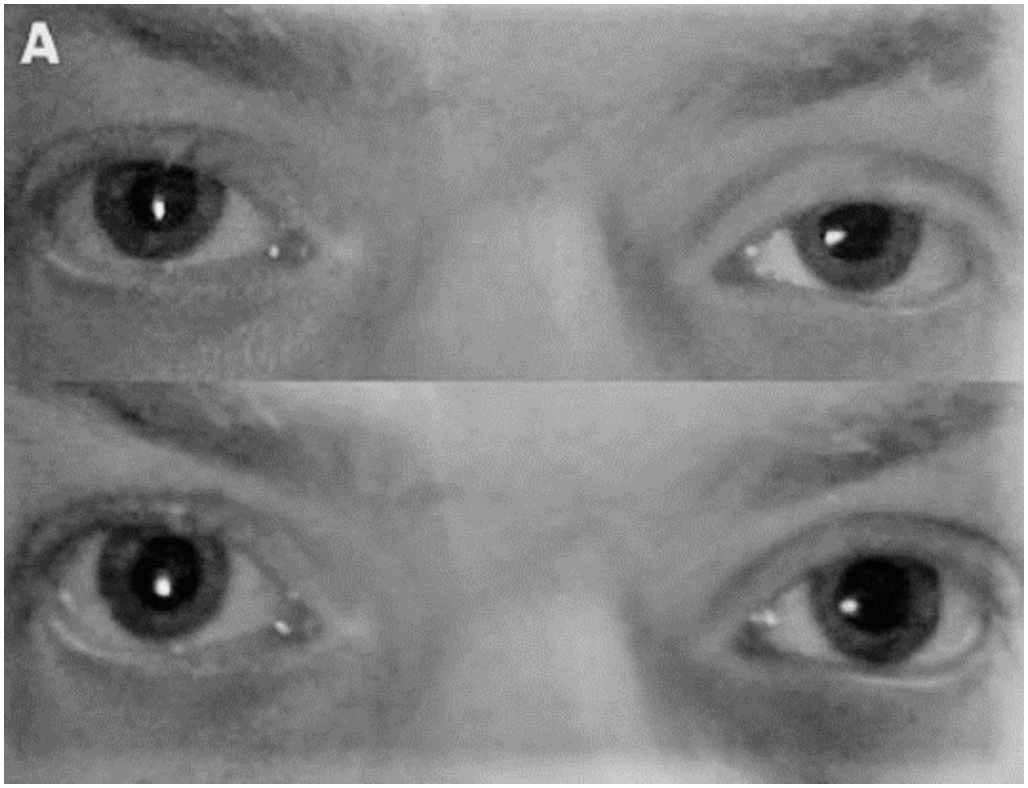
Patient in stable condition. Discharged on day 14. Fully recovered after one year.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Without pathological finding See attached lab report	cCT: w.p.f. MRI: w.p.f. See pictures page 5	Picture of Mydriasis from ice pack test (top is before, bottom is immediately after 5 min application of ice in a glove to both eyelids) Microbiological results CCT and cranial MRI See pictures page 5

ADDITIONAL COMMENTS including Moulage Information
Patient with drooping eyelids. Increasingly slurred speech. Compliant patient. Wants to sit, finds it difficult to stand upright. Difficulties moving tongue, thirsty because of dry mouth, chokes on water when swallowing too fast.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation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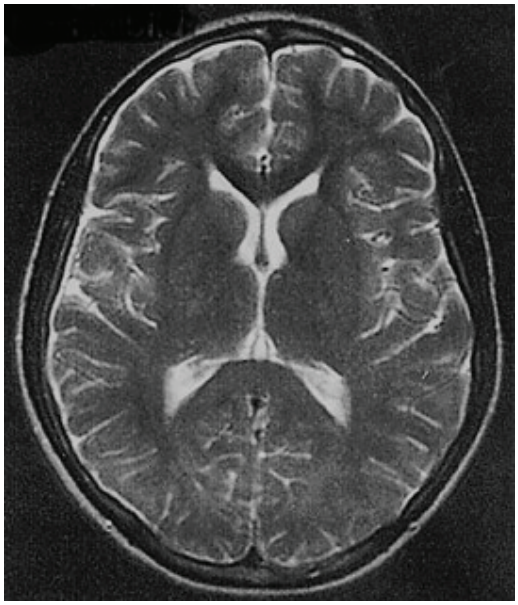

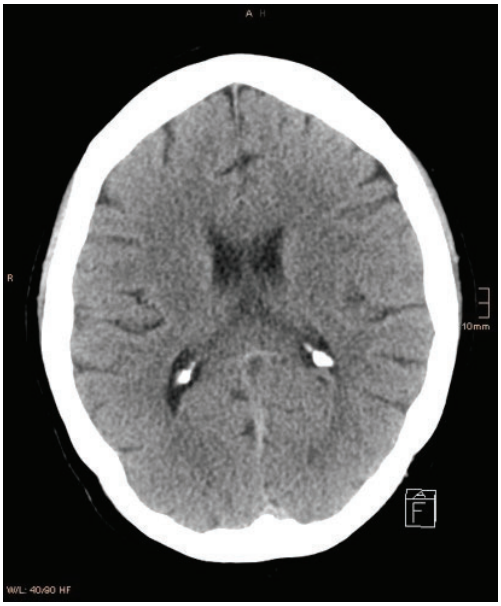
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Bundeswehr Institute of Microbiology

Report date:

Microbiological Lab Report

Sender:

Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01BOTSA0S
Collected at:
Received at:
Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
Botulinum toxin (PCR)	**positive**	negative
Other tests		
Gram staining (microscopy)	negative	negative
Botulinum toxin (antigen)	**positive**	negative

Assessment and evaluation

Detection of Botulinum Toxin in the antigen-enzyme-linked immunosorbent assay (**Ag-ELISA**) in the submitted sample. No detection of vegetative bacteria or spores in the gram staining.

Genomic detection of Botulinum toxin specific **nucleic acid** in the submitted sample.

Based on the microbiological findings, there is an urgent suspicion of botulism.

Additional Information

Botulinum Neurotoxins (BoNTs)

The botulinum neurotoxins are a group of seven related proteins produced by spore-forming bacillus *Clostridium botulinum* as well as three other *Clostridium* species (*C. butyricum, C. baratii, C. argentinense*). The BoNTs are the most potent neurotoxins known. *Clostridium* spores are ubiquitous; they germinate into vegetative bacteria that can produce toxins under anaerobic conditions. In a bioterroristic attack, BoNTs could be successfully delivered via aerosol or used to contaminate food- and water supplies. Regardless of the route of exposure, the clinical syndrome produced by these toxins is botulism. Symptoms usually begin with cranial nerve palsies (i.e. drooping eyelids, blurred vision, double vision, dry mouth/throat, difficulty swallowing and voice impairment). This is followed by progressive descending flaccid paralysis, generalized weakness and progression to respiratory failure and death. Onset of symptoms is dose dependent and may begin as early as 12 h after exposure but can also take several days to develop.

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Lieutenant Colonel (MC)

Clinical Microbiologist, Virologist & Infectious Disease Epidemiologist

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template M2. Botulism Survivor—Lethal Dose)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(note to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ. As designed, the history for this patient is: patient found unconscious.

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
100	110	70	23/min	95	Pain	2	4	5	Temperature 38,9°C

M		**A**	Not ascertainable
I	Infected wound on the left forearm	**M**	Not ascertainable, Ibuprofen in his pockets
S	Ptosis, symmetrical weakness, slurred speech	**P**	Not ascertainable
T	**<c>** **M** None	**L**	Not ascertainable
	A **A** Without pathological finding	**E**	Not ascertainable
	B **R** Forced chest excursion	**C**	Confused
	C **C** Dehydrated, IV fluids	**R**	Heavily panting, Tachypnoea
	D **H** Ptosis, weakness of the limbs	**E**	Ptosis
	E **E** Without pathological finding	**S**	Normal
		S	Sweating

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

IV fluids
Monitoring of vital signs.
Laryngeal tube + oxygen supply 6l/min

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
95	115	70	20/min	97	Verbal	4	5	6	Temperature 39,0°C

List of injuries (or disease findings):

Inspection: Ptosis, infected wound on the left forearm: red, swollen, central injection site
Auscultation: lungs: w.p.f. / heart: tachycardic, rhythmic, abdomen: w.p.f.
Palpation/Percussion: w.p.f.
Neurological examination: Decreased deep tendon reflexes, dysathria, dysphonia, hyposthenia under resistance (proximal and distal muscles), deficit of the facial muscles (showing teeth, frowning), mild deficit of the extraocular muscles (cranial nerves III, IV, VI).

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+15min	Monitoring on intensive care unit, Taking blood cultures and blood samples, suspected sepsis (2/3 qSOFA). Chest X-Ray: without pathological findings.
+1hr	1g Perfalgam IV to reduce the fever. Start antibiotic treatment with Pip/Taz and Clarithromycin.
+4hr	Wound debridement.
+1d	Reduced fever, peak up to 38,8°C in the evening. Still enforced breathing.
+2d	Paralysis of the arms, growth of C. botulinum, +3D Treatment with BoNT antitoxin ABE.
+4d	Loss of gag reflex, protective intubation
+6d	Mechanical ventilation due to descending neuromuscular paralysis and respiratory failure
+46d	Extubation after 40 days of mechanical ventilation

EXPECTED OUTCOME OF CASE

Patient discharged after 62 days with persistent constipation and decreased swallow reflex. Recovered fully after one year.

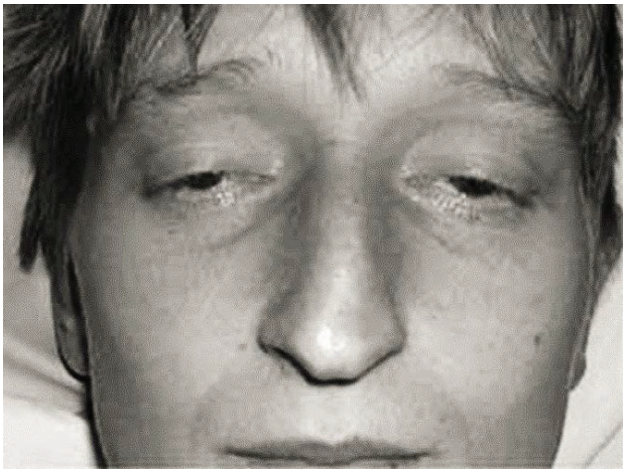
ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Lab result with signs of inflammation (CRP increased). See attached lab report.	EMG See images page 5	Picture of Mydriasis from ice pack test (top is before, bottom is immediately after 5 min application of ice in a glove to both eyelids) Picture of Botulism wound See images page 5

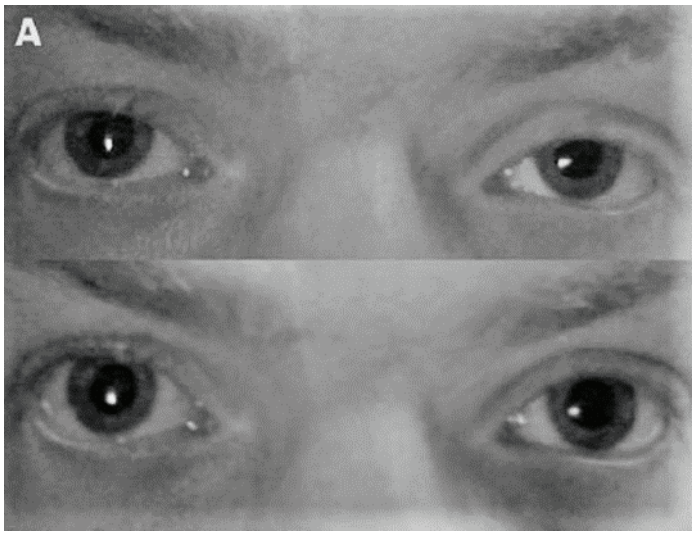
ADDITIONAL COMMENTS including Moulage Information

Patient with drooping eyelids. See picture of injury on next page
Slurred speech from the beginning. Swallows a lot.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

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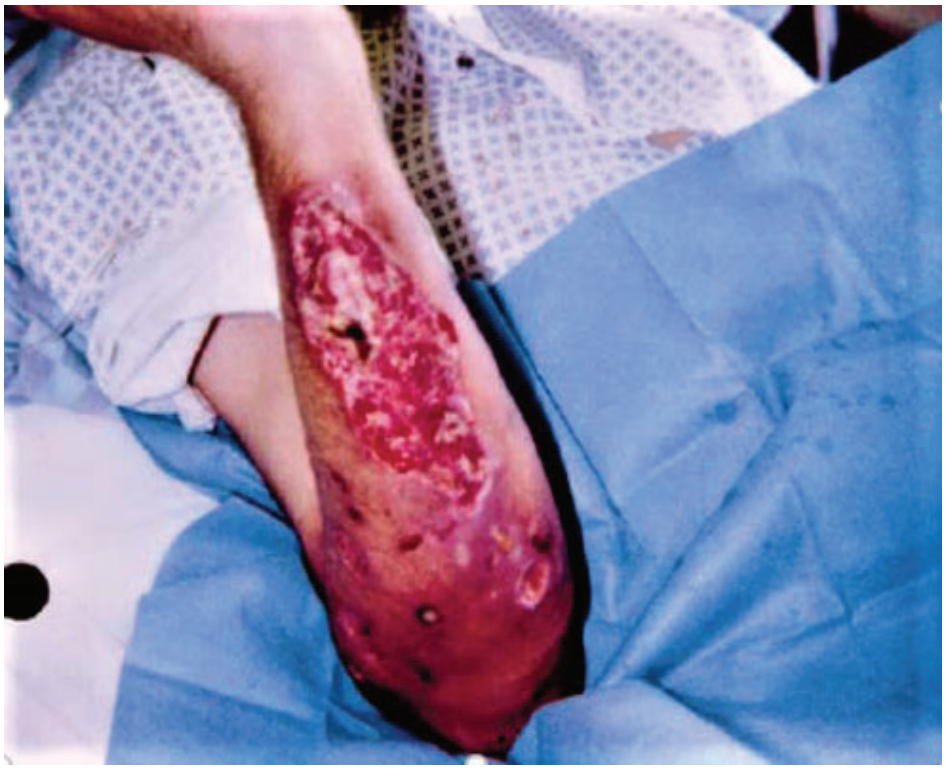

Bundeswehr Institute of Microbiology

Report date:

Microbiological Lab Report

Sender:

Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01BOTSA0S
Collected at:
Received at:
Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
Botulinum toxin (PCR)	**positive**	negative
Other tests		
Gram staining (microscopy)	negative	negative
Botulinum toxin (antigen)	**positive**	negative

Assessment and evaluation

Detection of Botulinum Toxin in the antigen-enzyme-linked immunosorbent assay (**Ag-ELISA**) in the submitted sample. No detection of vegetative bacteria or spores in the gram staining.

Genomic detection of Botulinum toxin specific **nucleic acid** in the submitted sample.

Based on the microbiological findings, there is an urgent suspicion of botulism.

Additional Information

Botulinum Neurotoxins (BoNTs)

The botulinum neurotoxins are a group of seven related proteins produced by spore-forming bacillus *Clostridium botulinum* as well as three other *Clostridium* species (*C. butyricum, C. baratii, C. argentinense*). The BoNTs are the most potent neurotoxins known. *Clostridium* spores are ubiquitous; they germinate into vegetative bacteria that can produce toxins under anaerobic conditions. In a bioterroristic attack, BoNTs could be successfully delivered via aerosol or used to contaminate food- and water supplies. Regardless of the route of exposure, the clinical syndrome produced by these toxins is botulism. Symptoms usually begin with cranial nerve palsies (i.e. drooping eyelids, blurred vision, double vision, dry mouth/throat, difficulty swallowing and voice impairment). This is followed by progressive descending flaccid paralysis, generalized weakness and progression to respiratory failure and death. Onset of symptoms is dose dependent and may begin as early as 12 h after exposure but can also take several days to develop.

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JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template M3. Botulism Non-Survivor—Lethal Dose)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(note to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ. As designed, the history for this patient is: dinner with colleagues two days ago, others got sick after dinner, too. Patient incompliant.)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
70	120	80	12/min	100	Alert	4	5	6	Temperature 36,4°C

M		
I		Scratches on both hands
S		Ptosis, Mydriasis; dry mouth; difficulties standing; slurred speech, constipation
T	**<c>** **M**	None
	A **A**	Without pathological finding
	B **R**	Without pathological finding
	C **C**	Without pathological finding
	D **H**	Visual symptoms
	E **E**	Without pathological finding

A	Penicillin
M	Occasional use of Cannabis
P	Common cold three weeks ago
L	Lunch yesterday
E	Unknown
C	Normal
R	Normal
E	Blurred vision, ptosis, mydriasis
S	Dry mouth
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Cotton swab drizzled with water (dry mouth), only under supervision
Monitoring of vital signs.
Wendel tubus

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
65	130	80	12/min	100	Alert	4	5	6	Temperature 36,5°C

List of injuries (or disease findings):

See above

Inspection: Ptosis, scratches on both palms, unable to stand upright
Auscultation: lungs/heart: w.p.f., abdomen: hypoactive bowel sounds
Palpation/Percussion: w.p.f.
Neurological examination: Mydriasis, pupils hardly react to light, no accommodation, decreased swallow reflex, gag reflex preserved, reduced tendon reflexes, hyposthenia under resistance (proximal and distal muscles), deficit of the facial muscles (showing teeth, frowning)

Drug abuse?

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+15min	Monitoring on intensive care unit, Taking blood cultures and blood samples, stool samples, treatment of consumption
+30min	cCT and MRI
+12hr	Paralysis of both arms. Increasing symmetrical weakness in both legs. Loss of gag reflex, denies protective intubation
+1d	NIBP 100/60 mmHg, HR 60/min, suspected Botulism, treatment with BoNT antitoxin denied
+2d	Thoracic pain. Blood samples taken. Chest X-Ray: Pneumonia, Start with AmoxiClav (3x 2,2g IV)
+3d	Abdominal pain: Abdomen X-Ray: Paralytic ileus. Enema and stomach tube
+4d	Increasing dyspnea, paralysis of both legs and beginning paralysis of Diaphragm. Hypoxia. Patient denies intubation and ventilation. Oxygen supply via Oxygen Mask 10l/min. NIBP 90/55 mmHg, HR 63/min, RESP 9/min, SATS 87%.
	Start of palliative care with prefinal sedation.

EXPECTED OUTCOME OF CASE

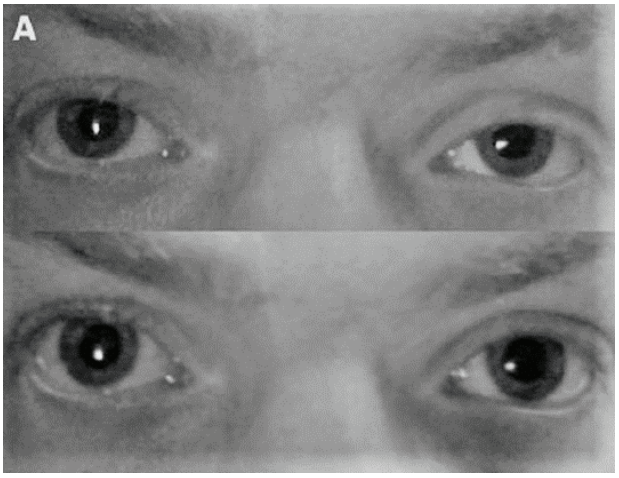
No recovery from paralytic ileus. Patient dies within the next day due to respiratory failure.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Without pathological finding Second Lab result with signs of inflammation (CRP increased). See attached lab report.	cCT: w.p.f. MRI: w.p.f. Chest CT and radiograph See images page 5	Picture of Mydriasis from ice pack test (top is before, bottom is immediately after 5 min application of ice in a glove to both eyelids) CCT and cranial MRI Chest CT and X-Ray (showing lobar pneumonia affecting right middle lobe) Supine AP image and a lateral image of a colonic ileus See images page 5

ADDITIONAL COMMENTS including Moulage Information
Patient with drooping eyelids. Slurred speech from the beginning. Swallows a lot. Incompliant patient. Can't stand.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation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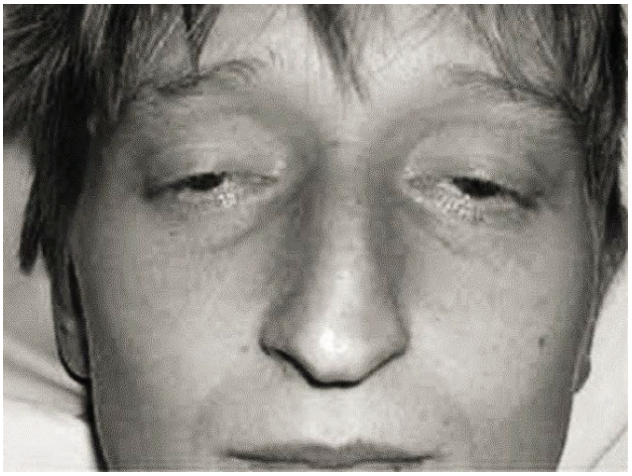
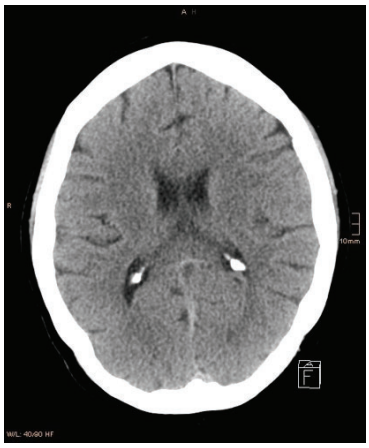
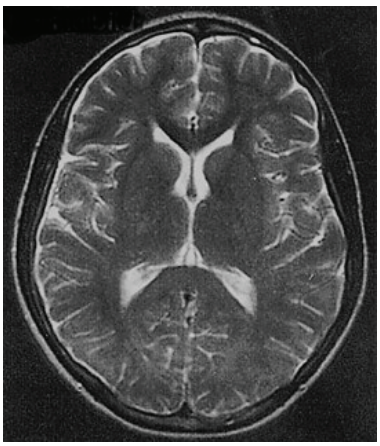
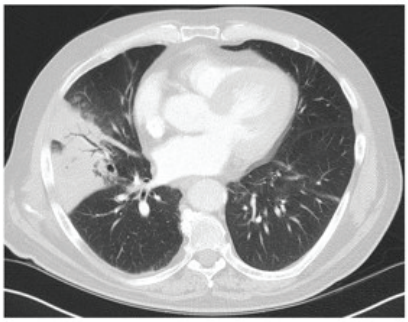
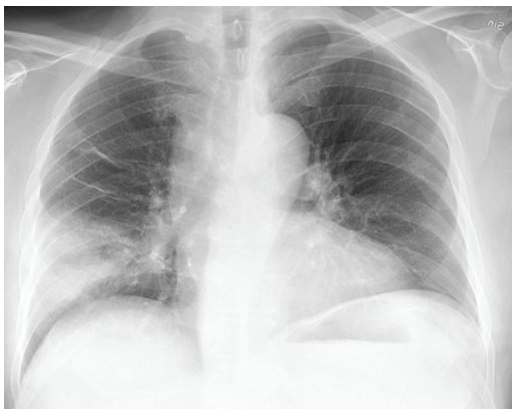
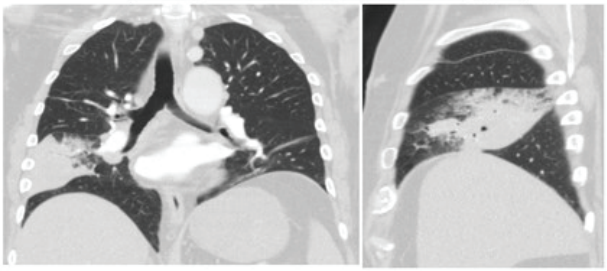


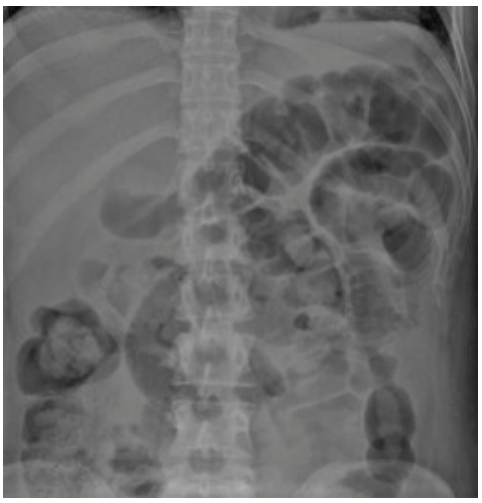


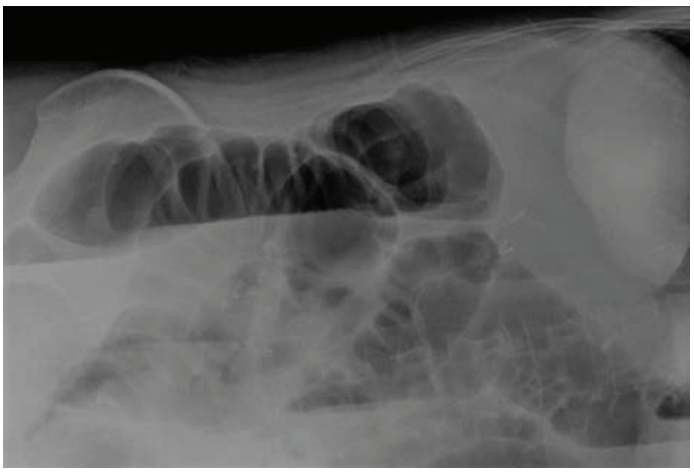












Bundeswehr Institute of Microbiology

Report date:

Microbiological Lab Report

Sender:

Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01BOTSA0S
Collected at:
Received at:
Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
Botulinum toxin (PCR)	**positive**	negative
Other tests		
Gram staining (microscopy)	negative	negative
Botulinum toxin (antigen)	**positive**	negative

Assessment and evaluation

Detection of Botulinum Toxin in the antigen-enzyme-linked immunosorbent assay (**Ag-ELISA**) in the submitted sample. No detection of vegetative bacteria or spores in the gram staining.

Genomic detection of Botulinum toxin specific **nucleic acid** in the submitted sample.

Based on the microbiological findings, there is an urgent suspicion of botulism.

Additional Information

Botulinum Neurotoxins (BoNTs)

The botulinum neurotoxins are a group of seven related proteins produced by spore-forming bacillus *Clostridium botulinum* as well as three other *Clostridium* species (*C. butyricum, C. baratii, C. argentinense*). The BoNTs are the most potent neurotoxins known. *Clostridium* spores are ubiquitous; they germinate into vegetative bacteria that can produce toxins under anaerobic conditions. In a bioterroristic attack, BoNTs could be successfully delivered via aerosol or used to contaminate food- and water supplies. Regardless of the route of exposure, the clinical syndrome produced by these toxins is botulism. Symptoms usually begin with cranial nerve palsies (i.e. drooping eyelids, blurred vision, double vision, dry mouth/throat, difficulty swallowing and voice impairment). This is followed by progressive descending flaccid paralysis, generalized weakness and progression to respiratory failure and death. Onset of symptoms is dose dependent and may begin as early as 12 h after exposure but can also take several days to develop.

S. Mantel, MD

Major (MC)

SHO for Clinical Microbiology, Virology & Infectious Disease Epidemiology

Dr. G. Genzel, MD

Lieutenant Colonel (MC)

Clinical Microbiologist, Virologist & Infectious Disease Epidemiologist

N. Brucellosis Simulated Patient Files

1. Brucellosis Survivor—Abrupt Onset

2. Brucellosis Survivor—Insidious Onset

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template N1. Brucellosis Survivor—Abrupt Onset)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(note to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ. As designed, the history for this patient is: knee surgery a year ago. No exposure to farm animals or unpasteurized products. Gum bleeding while brushing teeth.)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
102	110	70	20/min	95	Alert	4	5	6	Temperature 38.5°C

M			
I	Bruises on arms and fore-legs, bleeding stigmata of oral mucosa		
S	Arthralgia of the right shoulder, chest pain, fever, purulent cough, epistaxis		
T	**<c>** **M** Expectorants, painkillers		
	A **A** W.P.F.		
	B **R** Oxygen supply, wet rales		
	C **C** Re-cap time within 2s, tachycardia		
	D **H** Blood sugar 80mg/dl		
	E **E** Fever		

A	Tetracycline, Leukoplast
M	No drug abuse, no long-term medication
P	Knee surgery 12 months ago due to a meniscus damage
L	Undulant fever, loss of appetite
E	Four comrades are also feeling ill
C	Alert
R	Tachypnoea
E	W.P.F.
S	Purulent sputum, epistaxis
S	Pale, petechiae on abdomen and legs

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Oxygen supply via mask (6L)
IV aditus -> 1l of Ringer
Nosepad

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	110	75	22/min	98	Alert	4	4	5	Temperature 39.0°C

List of injuries (or disease findings):

Inspection: Right shoulder: Overheated, swollen; The patient is sweating. Oral cavity: Mucosal haemorrhage.
Auscultation: Wet rales
Palpation/percussion: Abdomen: Tenderness, especially in the right upper region, signs of hepatosplenomegaly

Blood cultures and serology taken

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2hr	Transfusion of concentrated red cells
+1d	MRI of the right shoulder, needle aspiration of the bursa after administration of platelet concentrate
+4d	Growth of B. melitensis in the bursal aspiration fluid, antibiotic treatment with Ciprofloxacin and Rifampicin
+10d	Raise of liver parameters, raise of platelet count, no fever, increased condition and breathing
+12d	Discharged

EXPECTED OUTCOME OF CASE

Follow up after 8 weeks: Decrease in right shoulder swelling, inconspicuous lab results, no relapse.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
On admission: Hb 9.0 g/dl WBC 3.7x10^9/l Platelets 20x10^9/l CRP 80mg/l ESR 61mm/h Liver enzymes GGT 200 UI/l AST 70 UI/ml ALT 65 UI/ml See lab report attached	Ultrasound: Hepatosplenomegaly MRI right shoulder: joint effusion, increased bursal fluid in subacromial and subdeltoid bursa with surrounding tissue edema Chest radiography on admission: Consolidation in the right inferior lobe compatible with lobar pneumonia CT scan of the chest on admission: Glass round opacity in the right inferior lobe CT scan of the chest at the end of the treatment: Significant improvement compared to the first CT scan See images on page 5	Ultrasound MRI Inspection shoulder Chest radiography, CT scans See images on page 5

ADDITIONAL COMMENTS including Moulage Information

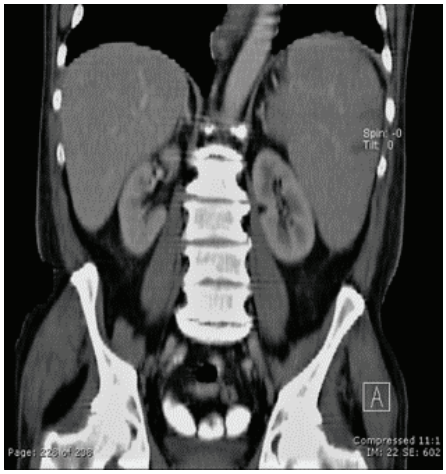
The patient seems to be depressed, he´s sweating, he needs to change his nightgown at least once per night.

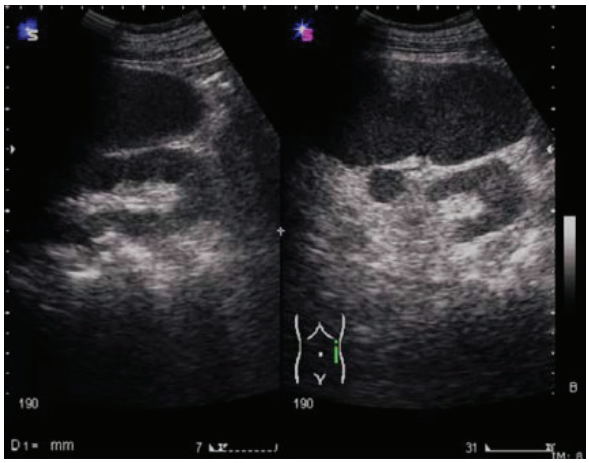
He has difficulties breathing, his right shoulder aches and he can't lift his shoulder higher than 90°.

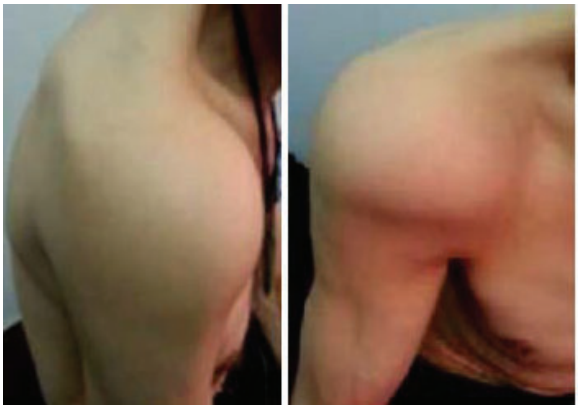
The shoulder is swollen and hurts when moving and when being touched.

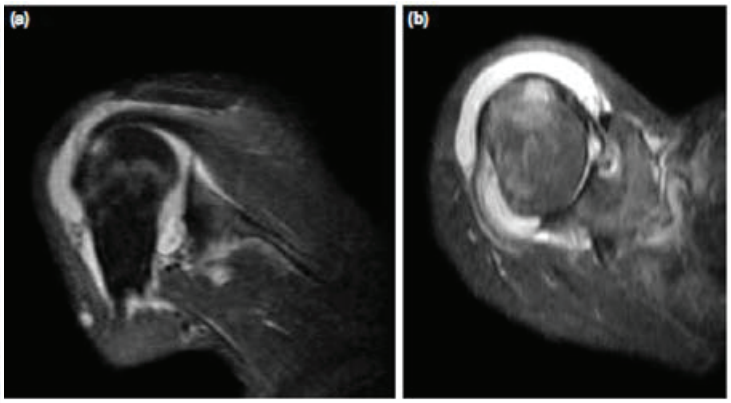
SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation





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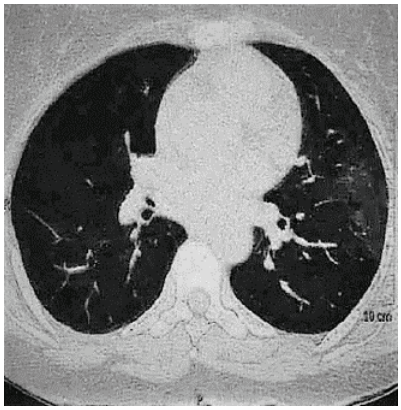
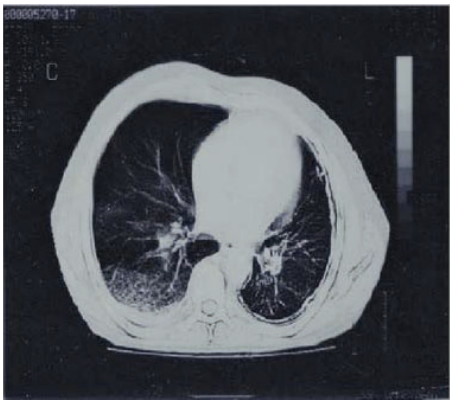
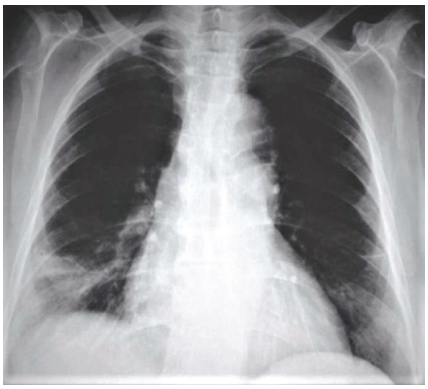






Bundeswehr Institute of Microbiology

Report date:

Microbiological Lab Report

Sender:

Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01BOTSA0S
Collected at:
Received at:
Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
Botulinum toxin (PCR)	**positive**	negative
Other tests		
Gram staining (microscopy)	negative	negative
Botulinum toxin (antigen)	**positive**	negative

Assessment and evaluation

Detection of Botulinum Toxin in the antigen-enzyme-linked immunosorbent assay (**Ag-ELISA**) in the submitted sample. No detection of vegetative bacteria or spores in the gram staining.

Genomic detection of Botulinum toxin specific **nucleic acid** in the submitted sample.

Based on the microbiological findings, there is an urgent suspicion of botulism.

Additional Information

Botulinum Neurotoxins (BoNTs)

The botulinum neurotoxins are a group of seven related proteins produced by spore-forming bacillus *Clostridium botulinum* as well as three other *Clostridium* species (*C. butyricum, C. baratii, C. argentinense*). The BoNTs are the most potent neurotoxins known. *Clostridium* spores are ubiquitous; they germinate into vegetative bacteria that can produce toxins under anaerobic conditions. In a bioterroristic attack, BoNTs could be successfully delivered via aerosol or used to contaminate food- and water supplies. Regardless of the route of exposure, the clinical syndrome produced by these toxins is botulism. Symptoms usually begin with cranial nerve palsies (i.e. drooping eyelids, blurred vision, double vision, dry mouth/throat, difficulty swallowing and voice impairment). This is followed by progressive descending flaccid paralysis, generalized weakness and progression to respiratory failure and death. Onset of symptoms is dose dependent and may begin as early as 12 h after exposure but can also take several days to develop.

S. Mantel, MD

Major (MC)

SHO for Clinical Microbiology, Virology & Infectious Disease Epidemiology

MEDIZINISCHE B-AUFKLÄRUNG & VERIFIKATION TE 050

Dr. G. Genzel, MD

Lieutenant Colonel (MC)

Clinical Microbiologist, Virologist & Infectious Disease Epidemiologist

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template N2. Brucellosis Survivor—Insidious Onset)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(note to MEL/MIL scripters: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ. As designed, the history for this patient is: 6 weeks ago, he had been on a trip where they had a snack with locals. Undulant fever the last 4 weeks)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
80	135	90	18/min	100	Alert	4	5	6	Temperature 39.0°C

M

I		None
S		Fever, chills, dry cough, fatigue
T	**<c>** **M**	7 days of AmoxiClav 500mg/125mg 3x/d for the last 7 days, Paracetamol 500mg in the evening
	A **A**	W.P.F.
	B **R**	Tachypnoea
	C **C**	W.P.F.
	D **H**	W.P.F.
	E **E**	Fever, chills

A	None
M	No drug abuse, Pantoprazol 20mg 1-0-0
P	Surgical removal of several dysplastic nevi, history of peptic disease
L	Reduced appetite, no longer resilient
E	6 weeks ago they he had a dinner together with locals
C	Alert
R	Mild tachypnoea
E	W.P.F.
S	Dry cough
S	W.P.F.

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

IV aditus
1g Perfalgan
EKG w.p.f.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
70	130	90	14/min	100	Alert	4	5	6	Temperature 37.5°C

List of injuries (or disease findings):

Inspection: No indication of melanoma, several haematomas on the arms
Auscultation: Abdomen/lungs: w.p.f.
Palpation, Percussion: Abdomen: Tenderness in right and left upper region. Lungs: w.p.f.

X-Ray of the chest: w.p.f.
CT scan of the abdomen: Splenomegaly
EKG: Sinus rhythm, HR 70/min
Ultrasound: Slightly enlarged liver, Splenomegalie
Laboratory results: Anemia, Thrombocytopenia, elevated liver values, Inflammation

(Malaria tests: negative) Gram staining: Gram-negative coccobacilli

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1d	Serology: HAV, HBV immune, HCV negative; CMV/EBV condition after infection; Brucellosis IgG/IgM positive PCR Brucellose spp. positive, HIV negative
+1d	Beginning of treatment with Doxycyclin 100mg p.o. 1-0-1-0, Rifampicin 900mg p.o. 1-0-0
+10d	Discharged

EXPECTED OUTCOME OF CASE

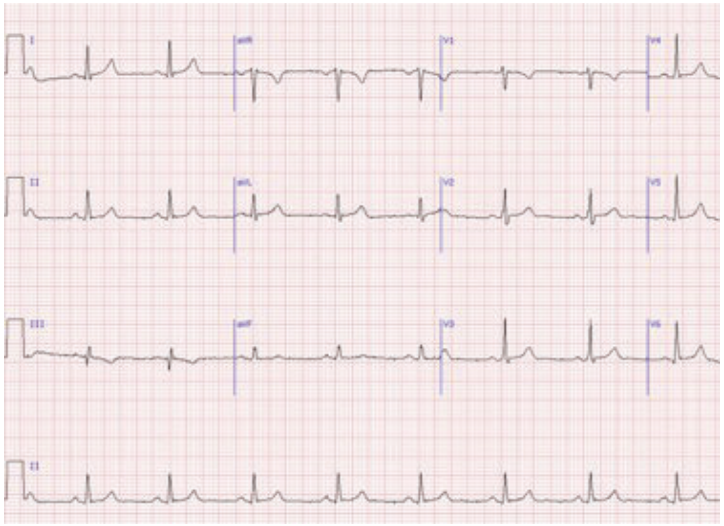
Antibiotic treatment for 6 weeks. End of undulant fever 2 weeks after beginning of antibiotic treatment. No residuals.

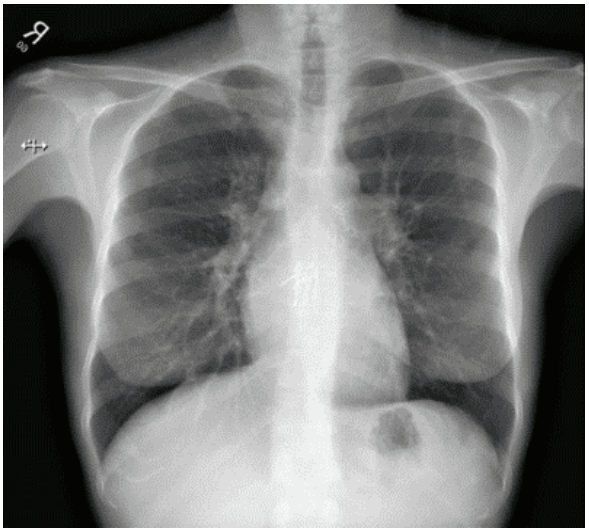
ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Hb 11.1 g/dl WBC 14x10^9/l Neutrophils 50% Platelets 80x10^9/l CRP 30mg/l ESR 80mm/h Liver enzymes GGT 220 UI/l AST 52 UI/ml ALT 64 UI/ml See lab report attached	Ultrasound: Splenomegaly X-Ray of the chest: w.p.f. EKG: sinus rhythm, HR 70/min See images on page 5	Ultrasound CT scan of the abdomen Gram staining See images on page 5

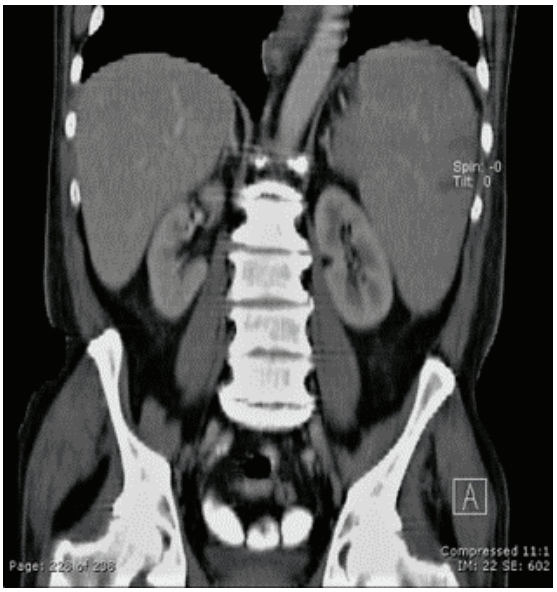
ADDITIONAL COMMENTS including Moulage Information
The patient feels very weak, he is always tired, can´t motivate himself to do anything. Several haematomas on the arms and forelegs. When asked he explains that he gets bruises much more often than before. He wakes up at night because he is completely sweaty.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation



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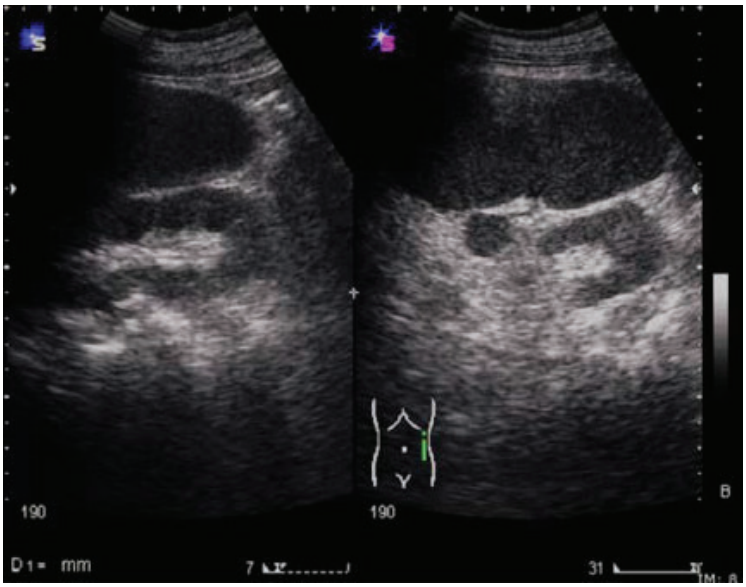
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Bundeswehr Institute of Microbiology

Report date:

Microbiological Lab Report

Sender:

Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01BOTSA0S
Collected at:
Received at:
Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
Botulinum toxin (PCR)	**positive**	negative
Other tests		
Gram staining (microscopy)	negative	negative
Botulinum toxin (antigen)	**positive**	negative

Assessment and evaluation

Detection of Botulinum Toxin in the antigen-enzyme-linked immunosorbent assay (**Ag-ELISA**) in the submitted sample. No detection of vegetative bacteria or spores in the gram staining.

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Based on the microbiological findings, there is an urgent suspicion of botulism.

Additional Information

Botulinum Neurotoxins (BoNTs)

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O. Ebola Virus Disease Simulated Patient Files

1. Ebola Virus Disease Survivor

2. Ebola Virus Disease Non-Survivor

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template O1. Ebola Virus Disease Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☑ CONTAGIOUS ☑ Contact ☑ Droplet ☑ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(note to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ. As designed, the history for this patient is: Symptom onset yesterday presenting fever (38.5°C), a sore throat, abdominal pain and vomiting. The patient had taken care of his wife, who had suffered from an Ebola virus infection, until seven days ago, when he had brought her to a hospital to deliver a stillburn child. His wife is still in the hospital. EBV PCR was negative today.)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
82	115	80	16/min	98%	Alert	4	5	6	Temperature 39,4°C

M			
I	Suspected Ebola fever		
S	Fatigue, fever, vomiting		
T	**<c>** **M** C: None T: Vomex, Paracetamol		
	A **A** None		
	B **R** Mild tachypnea		
	C **C** Mild hypotension: IV fluids		
	D **H** GCS 15		
	E **E** Fever, Pain: NRS 6		

A	Penicillin
M	Ramipril, Candesartan
P	Hypertension, unknown Malaria status
L	Last meal yesterday
E	Wife : EBV PCR positive until today . Fetal swab: EBV PCR positive
C	Alert
R	Mild tachypnea
E	Symmetrical, react promptly to light
S	Normal
S	Hot

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Isolation!
IV infusions (Ringers Lactate)
Pain killers (Paracetamol) and Vomex/Omeprazole,

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
85	115	80	18/min	97	Alert	4	5	6	Temperature 39,5°C

List of injuries (or disease findings):

Fever
No neurological deficit
Mild exsiccosis

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+30min	Blood samples (EBV, HIV, Malaria) and blood cultures taken, supportive care
+3hr	Patient complains of moderate dyspnoea and productive cough. Antibiotic treatment started: Levofloxacin 500mg 1-0-1 oral Rash on both arms
+1d	Laboratory results (s. below), Malaria pos., EBV PCR pos., HIV neg. Body temperature still high. Anti Malaria treatment: Atovaquon-Proguanil 250mg/100mg 1-1-1-1
+3d	NIBP 90/60mmHg, HR 87/min, O2 SATS 90% -> IV infusion increased and oxygen. Candesartan paused.
+7d	Patient increases
+10d	Severe headache, vision loss, acute neurological dysfunction -> cCT: Stroke -> Alteplase IV r-tPA
+15d	EBV PCR negative
+17d	EBV PCR negative, discharged to a rehabilitation center

EXPECTED OUTCOME OF CASE

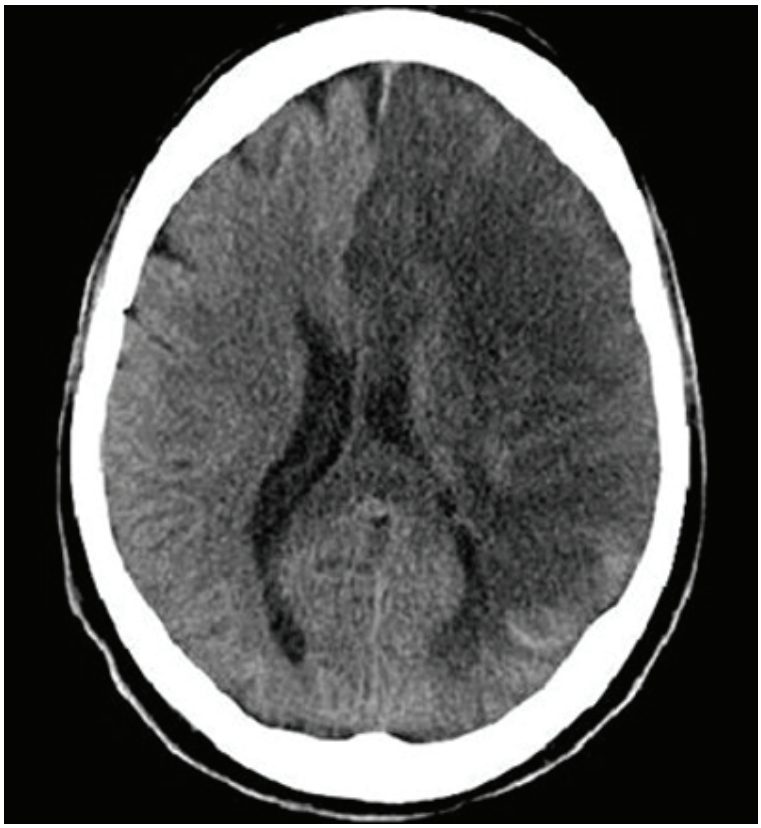
The patient improves within one year after EBV infection. Ongoing physiotherapy. He presents with markedly improved but persistent neurological deficits.

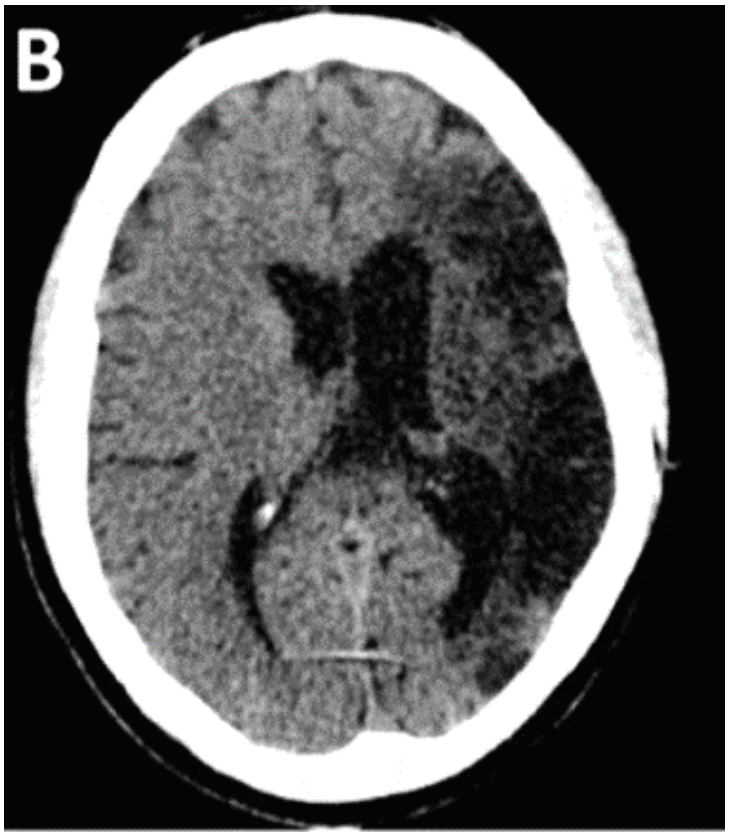
ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
- Laboratory Results: On admission: +3D: Hb (g/dl) 16,4 14,3 Platelets 125000 75000 (/µl) Lymphocytes absolute (/µl) 500 600 Crea 1,3 0,9 (mg/dl) Na 132 140 (mmol/l) K (mmol/l) 3,5 4,0 CRP (mg/l) 48 80 See attached lab report.	cCT d10 (top page 5): left-hemispheric acute cerebral infarction. cCT follow up (bottom page 5): Residuals of an old left-hemispheric cerebral infarction.	2 CCTs See images page 5

ADDITIONAL COMMENTS including Moulage Information
Rash on both arms. Starts coughing during presentation, complains of sore throat. Starts vomiting during handover. Feels dizzy due to unaccustomed low blood pressure.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

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Bundeswehr Institute of Microbiology

Report date:

Microbiological Lab Report

Sender:

Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01EBOSA0S

Collected at:

Received at:

Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
Ebolavirus (RT_PCR)	**positive**	negative

Assessment and evaluation

Genomic detection of Ebola Virus-specific nucleic acid (target: L-gene) in the submitted sample.

Based on the microbiological findings, there is an **urgent suspicion of infection with Ebola virus.**

Additional Information

A further characterization of the sample cannot be performed in the Bundeswehr Institute of Microbiology. For further analysis forwarding of the sample to a specialized stationary laboratory BSL-4 is mandatory.

S. Mantel, MD

Major (MC)

SHO for Clinical Microbiology, Virology & Infectious Disease Epidemiology

Dr. G. Genzel, MD

Lieutenant Colonel (MC)

Clinical Microbiologist, Virologist & Infectious Disease Epidemiologist

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template O2. Ebola Virus Disease Non-Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☑ CONTAGIOUS ☑ Contact ☑ Droplet ☑ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(note to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ. As designed, the history for this patient is: Symptom onset 5 days ago. Initially fever; increasing headache over the past few days. In the beginning he felt uncomfortable with nausea and diarrhoea, then increasing lethargy. Today he wouldn´t wake up adequately and started to bleed from nose and ears. Bruises and blood blisters on arms and legs. Hemorrhagic eyes. Brother and father came down with ebola lately.)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
84	90	70	24/min	88%	Verbal	3	5	5	Temperature 38,7°C

M			
I			Suspected Ebola fever
S			Massive hemorrhage, severe headache, fatigue, diarrhoea
T	**<c>**	**M**	C: None T: Vomex, Paracetamol
	A	**A**	None
	B	**R**	Tachypnea, low SATS: Oxygen, (Guedel tubus?)
	C	**C**	Hypotension, tachycardic: IV fluid + per os substitution of fluids
	D	**H**	GCS 13
	E	**E**	Fever, Pain: NRS 7-8

A	None
M	None
P	None, no Malaria infection recalled
L	Last meal yesterday, close contact to family until arrival
E	Father and brother came down with Ebola
C	Depressed consciousness
R	Tachypnea
E	Hemorrhage
S	Bloody discolored
S	Hot, sweaty, blood blisters

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Isolation!
IV infusions (Ringers Lactate) and oral intake of fluids and electrolytes
disinfection of bruises,
pain killers (Paracetamol) and Vomex,
Oxygen

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
98	110	70	26/min	90	Alert	4	5	6	Temperature 38,5°C

List of injuries (or disease findings):

Fever
Pupils symmetrical, react promptly to light
No neurological deficit
Exsiccosis

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1d	Sepsis signs: treatment with antibiotics
+5d	Drop in haemoglobin due to massive bleeding (bloody diarrhoea): blood transfusion 3 red cell concentrates and increased IV intake 5l
+6d	Start of palliative care
+7d	HR 130/min, NIBP 80/40mmHg, RESP 30/min, SATS 80%, AVPU/GCS U/111
+7d	Deceased

EXPECTED OUTCOME OF CASE

The patient's condition deteriorates despite active treatment. His vital values deteriorate as do his symptoms. The diarrhoea changes to increasingly bloody. The bloody blisters open up to form persisting skin lesions. At some point the decision for a change in treatment (palliative care) has to be made. In the end the patient dies from the complications of an Ebola virus infection.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
- Repeated Malaria diagnostic tests: 3 times negative (0D, +1D, +2D) - HIV negative (0D) - Ebola virus PCR: positive CT:17 (0D), positive CT:24 (+5D) - Laboratory Results: On admission: +5D: Hb (g/dl) 15,1 8,5 Crea 1,6 1,3 (mg/dl) CK (U/l) 4500 2000 AST (U/l) >2000 >1000 ALT (U/l) >2000 800 Na 145 140 (mmol/l) K (mmol/l) 3,2 3,8 CRP (mg/l) 48 80 See attached lab report.	Retinal imaging: peripapillary pale retinal lesions See images page 5	Inspection: Hemorrhage -> bleeding from eyes Derma: Rash and bloody blisters Retinal imaging See images page 5

ADDITIONAL COMMENTS including Moulage Information

Moulage information (see pictures page 5):
Skin: Bloody blisters on almost black skin (hemorrhage). Bleedings from mouth, nose, ears, anus. Feverish.
Red eyes (whole cornea); bleeding from eyes

Patient is extremely exhausted, he suffers from nausea and diarrhoea and has a severe headache.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
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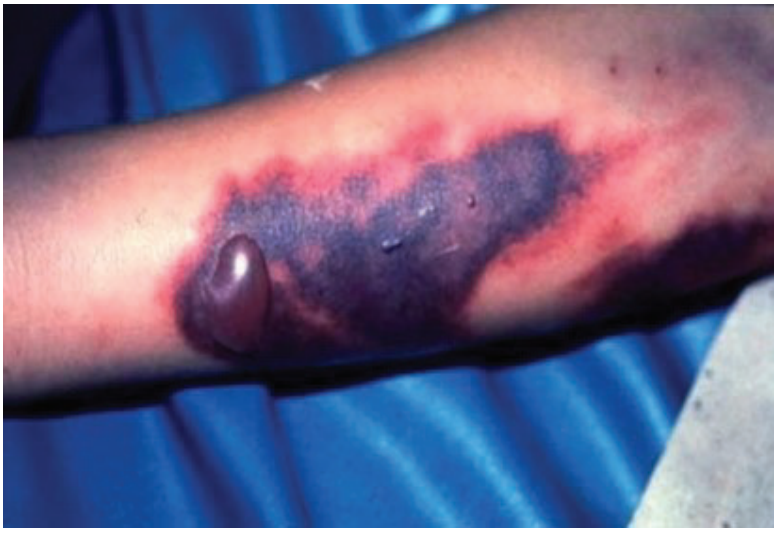

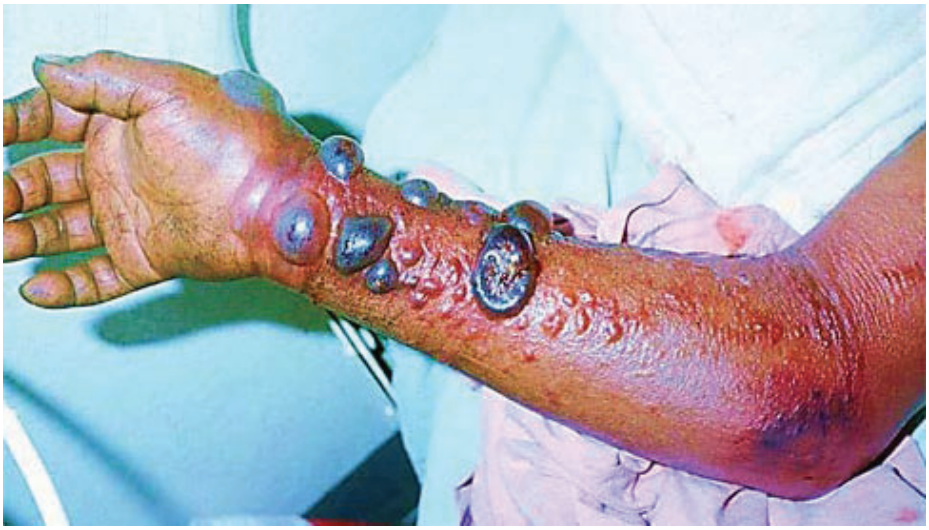

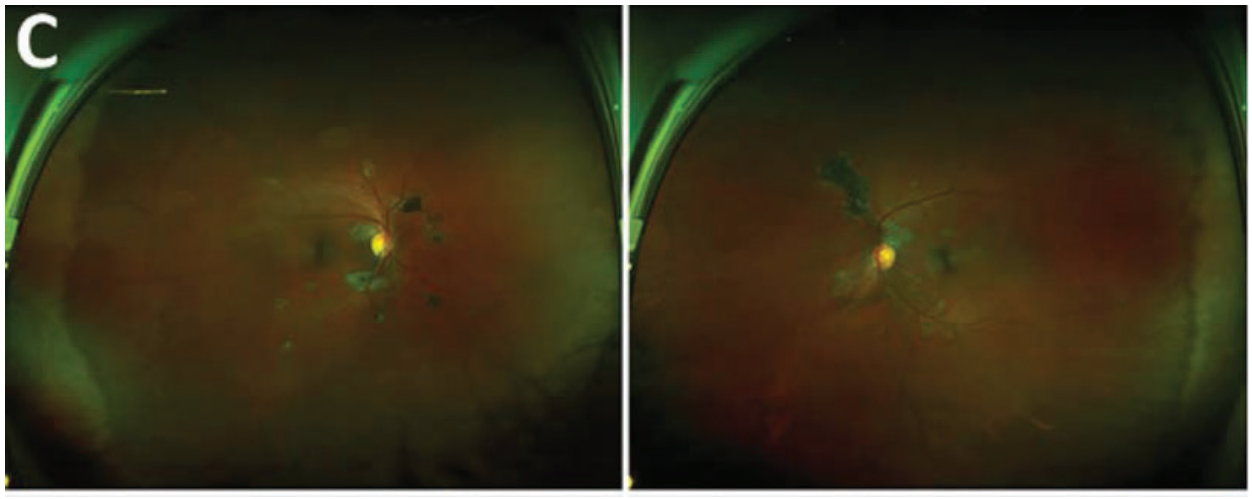
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Bundeswehr Institute of Microbiology

Report date:

Microbiological Lab Report

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Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01EBOSA0S

Collected at:

Received at:

Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
Ebolavirus (RT_PCR)	**positive**	negative

Assessment and evaluation

Genomic detection of Ebola Virus-specific nucleic acid (target: L-gene) in the submitted sample.

Based on the microbiological findings, there is an **urgent suspicion of infection with Ebola virus.**

Additional Information

A further characterization of the sample cannot be performed in the Bundeswehr Institute of Microbiology. For further analysis forwarding of the sample to a specialized stationary laboratory BSL-4 is mandatory.

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P. Eastern Equine Encephalitis Virus Disease Simulated Patient File

1. Eastern Equine Encephalitis Virus Disease Survivor—Encephalitic

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template P1. Eastern Equine Encephalitis Virus Disease Survivor—Encephalitic)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ.

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	100	60	20/min	96%	Pain	2	1	5	Temp: 40.0C

M

I Felt unwell for 3 to 4 days. Increasing fatigue. Sent to quarters by chain of command for rest. No injuries

S Comatose, appears to have a right sided facial palsy with nuchal rigidity.

T <c> **M** Immediately triaged as critical

A **A** Good air entry

B **R** Breathing is erractic

C **C** Hypotension

D **H** Febrile and comatose

E **E** No rashes no evidence of trauma, injury

A None

M No medications, no history of illicit drug use

P Unknown

L Unknown - likely yesterday had supper, no meals today

E Uncertain

C Unconscious

R Mildly tachypnic, O2 sat normal

E Pupils normal and reactive

S Excess salvation

S Cool

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

None - found moribund in quarters and immediately brought to medical unit by colleagues

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
125	90	60	20/min	96%	Pain	2	1	5	Comatose

List of injuries (or disease findings):

- Feeling unwell for 2 to 3 days. Complained to colleagues of muscle aches and a stiff neck.
- Found unresponsive by colleagues.
- Febrile

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-48:00H	Complained to colleagues of not feeling well, headache, muscle aches, stiff neck and feeling feverish. Did not seek medical attention.
0:00H	Arrives comatose. Febrile, hypotensive, erratic breathing with nuchal rigidity. Patient intubated and ventilated. Two IVs start, one TKVO (for meds) and second for fluid resuscitation (e.g. NS 500mL bolus for 3 and then 30mL/kg over).
+0:10H	Start second IV. Screening and tests ordered: CBC differential, blood for cultures, and serum for toxin assays and pathogen identification. Electrolytes, INR, PT aPTT, liver function tests, BUN, creatinine, urine sample. Chest X-ray AP and lateral, CT of head (if available, to rule out space occupying lesion). Monitor vitals, O2 sats, EKG. CSF opening pressure, CSF for analysis including PCR to rule out other pathogens (e.g. CSF PCR HSV-1, HSV-2, and enteroviruses). Patient started empirically on antiviral (e.g. acyclovir) and broad spectrum antibiotics (e.g. imipenem).
+1:00H	Patient is stable, with a slight improvement in blood pressure but still hypotensive; urine output has increased. Focused neurologic exam reveals a facial (7th) nerve palsy.
+3:00H	Hemodynamically stable. Patient has a self-limiting seizure. Started on anti-seizure medications.
+48:00H	Continues to be hemodynamically stable. Comatose. No seizures. Patient to be strategically 'medevaced'.
+7D	Patient status improved and patient was extubated. Diagnosis confirmed as EEEV.
long term	Continued to have neurological sequelae (e.g. right facial nerve palsy, cognitive impairment).

EXPECTED OUTCOME OF CASE

Partial recovery with right facial nerve palsy, cognitive impairment

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

- CBC:
  - WBC: 17.2k with 72% PMNs
  - Hb: 12.5 g/dL
  - Hct: 39.9%
  - Plts: 172k
- CSF:
  - Opening pressure: 32 cm H2O
  - WBC: 170 (36% lymphocytes, 64% neutrophils)
  - Protein: 123 mg/dL
  - Glucose: 62 mg/dL
- Serology: within 2 weeks the hemagglutination inhibition assay (HAI) for EEEV confirmed diagnosis
	- CXR: normal
	- CT scan of head: normal	

ADDITIONAL COMMENTS including Moulage Information

Patient is considered "non-contaminated" given that exposure would have occurred 5-15 days prior to the onset of symptoms.

The main core competency is to identify a biological syndrome and management of sepsis. This includes steps to rule out and treat empirically possible infectious agents and identifying sepsis early. Early presentation of sepsis include: blood pressure (BP) < 100 or lack of radial pulse (suggestive of septic shock); respiratory rate > 22 breaths per minute; altered mental status; and non-blanching rash, decreased capillary refill or skin mottling.

Moulage: feverish

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

Q. Plague Simulated Patient File

1. Pneumonic Plague Patient (Outcome Dependent on Treatment)

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template Q1. Pneumonic Plague Patient (Outcome Dependent on Treatment))	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☑ CONTAGIOUS ☐ Contact ☑ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(some explanation of how the person was exposed 3-5 days ago; explanation must be suitable for primary pneumonic plague; e.g., bio attack, exposure to another person with pneumonic plague, or some exceptional natural circumstances)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
112	122	78	20	96	A	4	5	6	T = 37.9°C

M		**A**	none
I	none	**M**	one Acetaminophen tablet today
S	fever, chills, chest pain, headache, unproductive cough, vomiting	**P**	unremarkable
T	<c> **M** Acetaminophen 500mg p.o.	**L**	yesterday, vomiting twice today
	A **A** without pathological findings	**E**	
	B **R** fast, rough, wet railes in both lungs	**C**	exhausted, not confused
	C **C** IV fluids, tachycardia, hypotension	**R**	respiration elevated, hurts
	D **H** blood sugar 88 mg/dl	**E**	within normal limits
	E **E** shock index pos.	**S**	dry cough
		S	hot, sweaty

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

IV started, Acetaminophen 1g IV to reduce the fever
1l Ringer IV fast, 1.5l Ringer / 24h, monitoring vital signs
Influenza rapid test negative
O2 supply (mask 6l)
Quarantine should be instituted once clinicians suspect a diagnosis of Plague

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
132	93	66	30	95 (6l)	V	3	5	6	T = 37.3°C

List of injuries (or disease findings):

Inspection: pale face, sweaty, chills
Auscultation: wet rales in both lungs, Abdomen with hypoactive bowel sounds
Palpation/Percussion: lungs: dull resonance on percussion, Abdomen: flat and soft without tenderness

CT scan of the chest: Pneumonia, consolidations
EKG: sinus rhythm, HR 132/min

suspected diagnosis: viral pneumonia -> ICU, Intubation readiness

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

on adm.	blood samples and blood cultures should be obtained, as should a gram stain of sputum
+2:00H	Gram staining: gram negative rods -> IV Tazobac (Pip/Taz 4g/0.5g q6h) or some comparable broad spectrum antibiotic should be administered
+1D	sudden onset of cough with bloody sputum, acute dyspnoea
+1D	Chest X-Ray: Consolidations and patchy shadows
+1D	HR 140/min, NIPB 79/44mmHg, RESP 38/min, SATS 80% (10l O2), T 39.8°C -> endotracheal intubation and mechanical ventilation + Gentamicin 5mg/kg IV once daily
+1.5D	vital signs deteriorate, DIC, beginning of multi organ failure
+2D	respiratory failure, growth of Yersinia pestis
+2.5D	death due to respiratory failure due to inhalational plague

EXPECTED OUTCOME OF CASE

Patient dies within 3 days after hospitalization (can be accelerated as needed for specific exercise purposes)

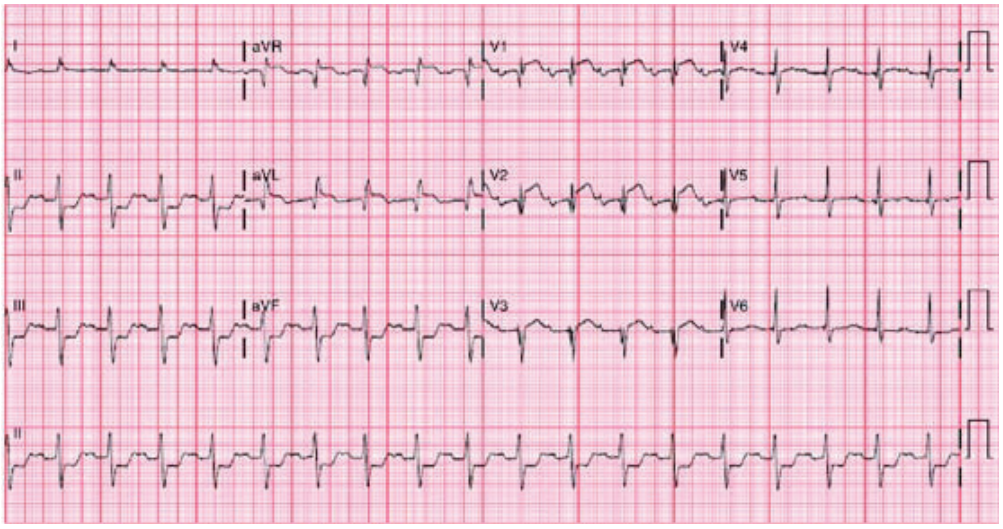
Or recovery if appropriate antibiotic therapy is initiated within ~1 day of symptom onset

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
On admission: WBC 14.2x10^9 /l Neutophils 11.7x10^9 /l Haemoglobin 136 g /l Platelets 156x10^9 /l CRP 82 mg/l Na 133 mmol/L K 3.4 mmol/l Glucose 106 mg/dl +1.5D (for non-survivor): WBC 44x10^9 /l Neutophils 37.0x10^9 /l Haemoglobin 113 g /l Platelets 92x10^9 /l CRP 150 mg/l Na 120 mmol/L K 2.8 mmol/l Glucose 114 mg/dl See attached lab report	EKG: tachycardic, sinus rhythm, HR 130/min Chest X-Ray: bilateral shadows Chest CT scan: pneumonia, consolidations, air bronchogram (first image on page 5 is on admission, second image is after 1 day)	EKG, CT scan of the chest, chest X-Ray (see images page 5)

ADDITIONAL COMMENTS including Moulage Information
Exhausted, sweaty, heavy breaths, dry cough, headache -> next day: worsening cough, now with bloody sputum -> Anxious patient because of all the blood and the feeling of suffocation

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation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V5
III
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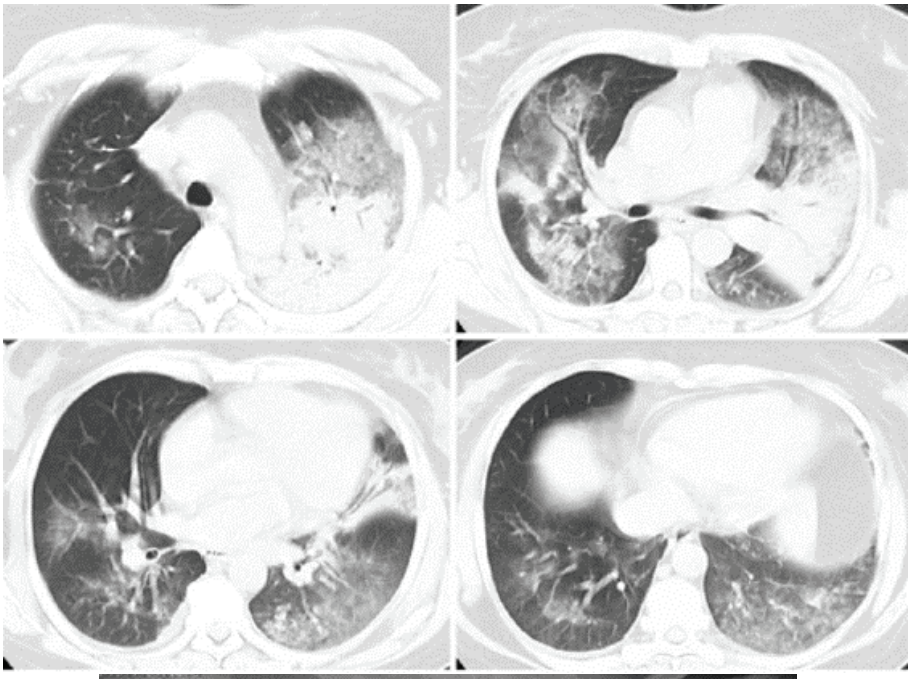
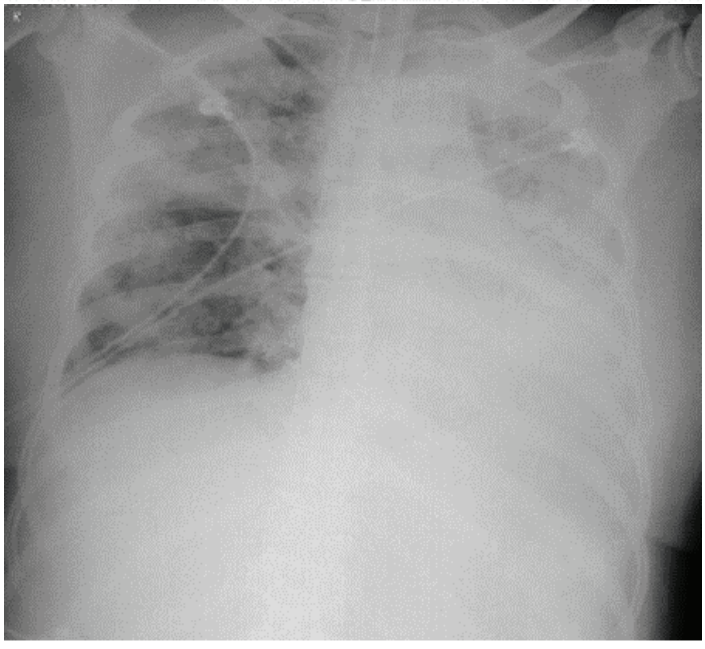
V3
V6
II





Bundeswehr Institute of Microbiology

Report Date:

Microbiological Lab Report

Sender:

Sender's sample ID:

Specimen: Human blood

Field lab ID: ML01BRUSA0S
Collected at:
Received at:
Released at:

Analytical Results

Method	Result	Reference range
Genomic tests		
Y. pestis (realtime-PCR)	**positive**	negative
Y. pestis (Target: pla)		
Y. pestis (Target: caf)	**positive**	negative
Other tests		
Bacterial culture	**positive**	negative
Gram staining (microscopy)	**positive**	negative

Assessment and evaluation

Detection of **gram-negative rods** in the gram staining.

Growth of *Yerinia spp.* in the submitted bacterial culture material. Realtime-PCR was used for genus identification.

Genomic detection of *Yersinia pestis*-specific nucleic acid in the submitted sample.

Based on the microbiological findings, there is an **urgent suspicion of plague.**

Additional Information

Yersinia pestis

Y. pestis is a rod-shaped, non-motile, non-sporulating and gram-negative bacterium and the causative agent of plague, a zoonotic disease of rodents (rats, mice, ground squirrels etc.). Human plague can present in three different predominant forms: bubonic, septicemic and pneumonic. Pneumonic plague is caused by either inhalation (primary) of bacteria or spread to lungs during bacteremia (secondary). Primary pneumonic plague is the most severe form and characterized by a sudden onset of symptoms after an incubation period of 1-6 days. These include high fever, chills, malaise and cough progressing rapidly to severe dyspnea, cyanosis and eventually death from respiratory failure and circulatory collapse. Immediate start of antibiotic therapy is essential. Diagnosis can be made by plague-specific qPCR, detection of the F1-antigen and immunofluorescence.

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Lieutenant Colonel (MC)

Clinical Microbiologist, Virologist & Infectious Disease Epidemiologist

R. Q Fever Simulated Patient File

1. Q Fever Survivor—Mild

2. Q Fever Survivor—Moderate

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template R1. Q Fever Survivor—Mild)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(note to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ. As designed, the history for this patient is: no known exposures to toxins, burn pits, fires. No previous history of respiratory diseases)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
84	117	71	19/min	97%	Alert	4	5	6	Fatigued, somewhat anxious

M			
I	No obvious injuries		
S	Fever, chills, headache, myalgias		
T	**<c>** **M** None		
	A **A** Patent/Clear		
	B **R** Oxygen may be administered, although it is not necessary in this case.		
	C **C** IV fluids may be administered, although they are unnecessary in this case.		
	D **H** Retro-orbital headache		
	E **E** N/A		

A	None; an allergy to doxycycline could be used to make the scenario more complex.
M	None; use of malaria prophylaxis could be used to make scenario more complex.
P	Previously healthy servicemember.
L	Light breakfast- no appetite since then.
E	Participated in routine patrols until yesterday.
C	Slightly anxious
R	Normal
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

None is necessary in most cases of Q-Fever. Oxygen via face mask or nasal cannula might be given in some cases, as might IV fluids. Tylenol or Ibuprofen might be given for fever and headache.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
86	121	78	20/min	96%	Alert	4	5	6	Anxious, Tired

List of injuries (or disease findings):

Mild tachycardia likely related to anxiety, pain (headache) and fever.

Temperature 102.2F (38C).

Significant retro-orbital headache.

Generalized joint and muscle pain.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+0d	Ideally, treatment with Doxycycline instituted.
+3d	Fever reaches a peak of 104.0F (40C).
+5d	Assuming doxycycline was given early, fever abates. Mild fatigue persists for several more days, but servicemember can be returned to light duty.

EXPECTED OUTCOME OF CASE

See +5d above.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
If obtained-- WBC = 13.7 k/ml with normal differential ALT = 77 AST = 66 ALP = 135	None required. If obtained, a CXR may reveal mild diffuse infiltrates bilaterally.	

ADDITIONAL COMMENTS including Moulage Information

Patient is considered "non-contaminated" given that exposure to agent would have occurred weeks prior to the onset of symptoms.

No moulage necessary.

Q-Fever is enzootic among sheep, goats, and cattle in many areas of the world but, perhaps, most notably in the Middle East. Plausible scenarios might be set in that area and designed so as to require a determination as to whether disease is naturally-occurring or the result of a deliberate attack.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template R2. Q Fever Survivor—Moderate)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(note to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ. As designed, the history for this patient is: no known exposures to toxins, burn pits, fires. No previous history of respiratory diseases)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
92	122	86	22/min	94%	Alert	4	5	6	Fatigued, Anxious

M		
I		No obvious injuries
S		Fatigue, fever, retro-orbital headache
T	**<c> M**	None
	A A	Patent/Clear
	B R	Oxygen may be administered, although it is not necessary in most cases.
	C C	IV fluids may be administered, although they are often unnecessary.
	D H	Significant headache
	E E	N/A

A	None; an allergy to doxycycline could be used to make the scenario more complex.
M	None; use of malaria prophylaxis could be used to make scenario more complex.
P	None; active duty servicemember-- generally healthy.
L	MRE yesterday; no appetite today
E	Too weak to join unit on patrol; confined to garrison
C	Slightly anxious
R	Mild tachypnea
E	Normal
S	Normal
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

None is necessary in most cases of Q-Fever. Oxygen via face mask or nasal cannula might be given in some cases, as might IV fluids. Tylenol or Ibuprofen might be given for fever and headache.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
96	124	88	24/min	94%	Alert	4	5	6	Anxious

List of injuries (or disease findings):

Mild tachycardia, tachypnea, hypertension related to anxiety, pain (headache) and fever.

Temperature 102.2F (38.5C).

Significant retro-orbital headache.

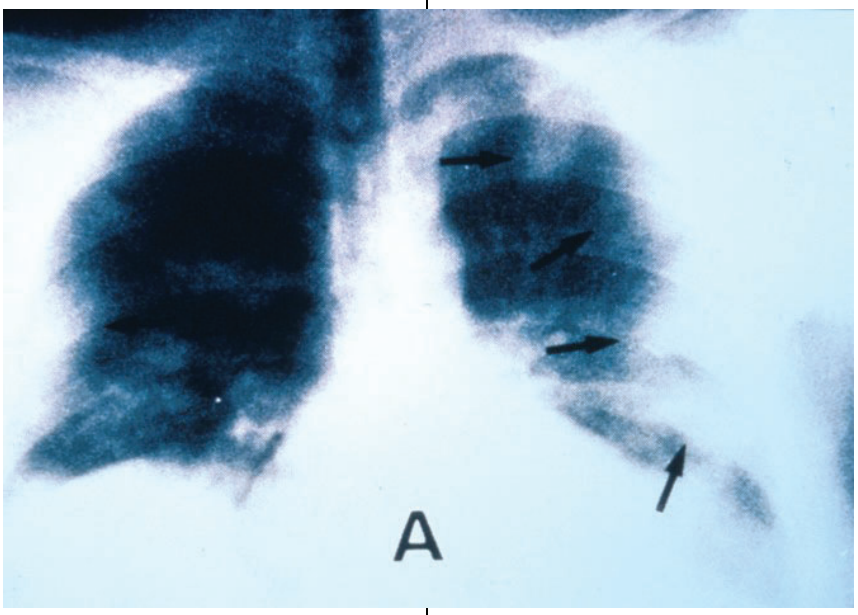
Generalized joint and muscle pain.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+2d	Patient develops cough and mild dyspnea. Respiratory rate increases to 30/minute, Oxygen saturation decreases to 91%, rales are heard on chest auscultation. A CXR is obtained and reveals pneumonia (see attached).
+11d	Fever continues for 11 days (range 5-14 days with treatment).
+29d	Residual cough and fatigue gradually improve over a four-week period.

EXPECTED OUTCOME OF CASE

If not already in place, oxygen should be given on D+2 when the patient's oxygen saturation decreased. Slow recovery is expected. Depending on the theater holding policy, the servicemember might be evacuated.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Blood gas (if obtained) on D+2 shows: pH = 7.45 pO2 = 88 mmHg pCO2 = 32 mmHg HCO3 = 26 O2 sat = 91% If obtained-- WBC = 15.6 k/ml with normal differential ALT = 122 AST = 94 ALP = 233	CXR available-- demonstrates diffuse pneumonitis, most prominent in left lower lobe.  	

ADDITIONAL COMMENTS including Moulage Information

Patient is considered "non-contaminated" given that exposure to agent would have occurred weeks prior to the onset of symptoms, whether natural or intentional.

No moulage necessary.

Q-Fever is enzootic among sheep, goats, and cattle in many areas of the world but, perhaps, most notably in the Middle East. Plausible scenarios might be set in that area and designed so as to require a determination as to whether disease is naturally-occurring or the result of a deliberate attack.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

S. Ricin Intoxication Simulated Patient Files

1. Ricin Intoxication Survivor

2. Ricin Intoxication Non-Survivor

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template S1. Ricin Intoxication Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☑ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☐ Chemical ☑ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

No exposure to industrial toxins, burn pits or fire. No previous history of respiratory disease.

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	110	70	20/min	88%	Alert	3	5	6	

M

I Rapidly evolving dyspnea

S Nausea, cough, breathless

T <c> **M** None

A **A** Clear

B **R** Oxygen

C **C** IV Fluid

D **H** None

E **E** None

A None

M None

P No particular medical or surgical antecedent

L Standard lunch at the canteen: chicken, roasted potatoes and salad

E

C Agitated, anxious

R Normal

E Lightly dilated pupils

S Normal

S Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Face mask Oxygen, FIO2 50% 5 L/min.
IV fluid perfusion placed during evacuation (Sodium Chloride 0.9%)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
115	100	60	25/min	75%	Verbal	3	4	6	

List of injuries (or disease findings):

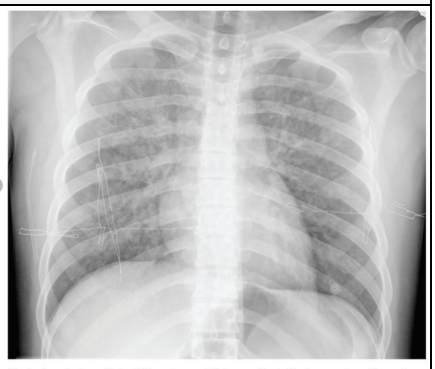
Dyspnea, tachypnea, cough, nausea, labored breathing and anorexia

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1-2d	Cough and dyspnea will progressively become more severe. Installation of noncardiogenic pulmonary edema
+2-4d	Stabilisation of dyspnea and lung edema. Fever and sweating
+5-8d	Progressive resolution of lung edema. Oxygen saturation and other parameters return to normal values

EXPECTED OUTCOME OF CASE

Progressive recovery with appropriate supportive care but with possible sequels: persistent cough, tiredness, exercise dyspnea.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Neutrophilic leukocytosis WBC 12.700/µl	Standard thorax X Ray (see next column)	 Chest radiography shows bilateral diffuse pulmonary infiltrates consistent with pulmonary edema. The cardiac size is within normal.

ADDITIONAL COMMENTS including Moulage Information
Antibiotics will be ineffective, short delay between exposure and symptoms should indicate a toxin

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template S2. Ricin Intoxication Non-Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☑ CONTAMINATED	☐ Chemical ☑ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

No exposure to industrial toxins, burn pits or fire. No previous history of respiratory disease.

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
115	110	70	22/min	80%	Alert	3	4	6	

M			
I	Rapidly evolving dyspnea		
S	Nausea, cough, breathless		
T	**<c>** **M** None	**A**	None
	A **A** Clear	**M**	Unknown
	B **R** Oxygen	**P**	No particular medical or surgical antecedent
	C **C** IV Fluid	**L**	Standard lunch at the canteen: chicken, roasted potatoes and salad
	D **H** None	**E**	
	E **E** None	**C**	Agitated, very anxious
		R	Normal
		E	Lightly dilated pupils
		S	Normal
		S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Face mask Oxygen, FIO2 50% 5 L/min.
IV fluid perfusion placed during evacuation (Sodium Chloride 0.9%)
Diazepam 5mg to reduce anxiety

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	90	60	30/min	72%	Verbal	3	4	6	

List of injuries (or disease findings):

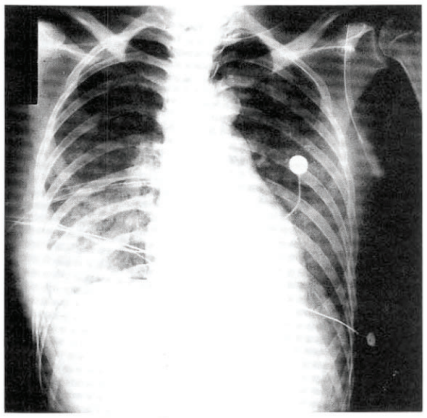
Dyspnea, tachypnea, cough, nausea, labored breathing and anorexia

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

+1-2d	Increasing respiratory symptoms with the respiratory rate rising to 44/min. Severe pulmonary edema
+3-4d	ARDS, hypotension, hypoxemia and collapse.

EXPECTED OUTCOME OF CASE

Death within 3 to 4 days post exposure despite intensive therapy with oxygen then with ventilation/intubation.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
Neutrophilic leukocytosis WBC 15.600/µl, 90% neutrophils Arterial blood gazes: PaO2, 41.2 mmHg PaCO2 34.9 mmHg		 severe degree of pulmonary edema.

ADDITIONAL COMMENTS including Moulage Information
Antibiotics will be ineffective, short delay between exposure and symptoms should indicate a toxin

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

T. SARS-CoV-2 Simulated Patient File

1. SARS-CoV-2 Survivor

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template T1. SARS-CoV-2 Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☑ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☑ CONTAGIOUS ☐ Contact ☑ Droplet ☑ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(to MEL/MIL scripter: this patient needs an explanation of how he was exposed around 5 days ago, or it can be left vague/unknown)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	130	83	15/min	98%	Alert	4	5	6	Temp: 39.1C

M		
I		24 hour history of worsening symptoms
S		Fatigue, non-productive cough, sweating, general malaise
T	<c> **M**	Reception provided N95 mask and immediately placed him in an examination room. No other intervention provided
	A **A**	Protected, clear, laminar airflow bilaterally
	B **R**	Describes increased breathing when active. Normal respiratory rate at rest
	C **C**	Normotensive, capillary refill - 2 seconds, sweating
	D **H**	Looks unwell, otherwise alert and oriented to person, place, and time
	E **E**	No signs of trauma, skin warm, no skin rashes, no peripheral cyanosis

A	None
M	Acetaminophen every 4-6 hours for 12 hours, vitamins
P	Generally healthy, smoked 1 pack per day for 10 years
L	Breakfast this morning, skipped lunch (no appetite)
E	Work this am with cough, sweating, became tired and anorexic as the day continued
C	Awake, alert, but looks unwell
R	Increased RR when active
E	Conjunctival injections, pupils normal and reactive
S	None
S	Fever

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

- Acetaminophen for fever (e.g. Tylenol)
- Directed by supervisor to go to sick call because he appeared unwell (fatigued, visible sweating)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
110	125	85	18/min	96%	Alert	4	5	6	Temp: 39.1C

List of injuries (or disease findings):

- No injuries
- Cough (non-productive)
- Sweating
- Slight headache

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-9:00H	Woke up feeling unwell, with dry cough, sweating. Poor appetite but ate breakfast.
-3:00H	No appetite, skipped lunch, cough and fatigue getting worse. Gets short of breath when lifting equipment.
0:00H	Coughing, feverish, malaise at work. Directed by supervisor to see a physician.
+0:10H	Seen in triage, given N95 mask, and placed in a patient room by himself.
+0:20H	Seen and assessed by staff. All health care providers using proper PPE in case of infection.
+0:30H	Blood panel, throat specimen chest x-ray, acetaminophen orally every 4-6 hours as needed for ache and fever. Started on O2 by nasal prongs.
+1:00H	RT-PCR positive for SARS-CoV-2. Patient remains in isolation with close observation
+1:30H	Medical staff informs chain of command of the situation, contract tracing begins in earnest, with individuals with acute respiratory symptoms identified, isolated and tested.

EXPECTED OUTCOME OF CASE

Progressive recovery requiring minimal supportive care and monitoring. Isolation per current requirements.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
- RT-PCR obtained from a nasal swab: positive for SARS-CoV-2 (available in 1 hour) -EKG: normal sinus rhythm (if ordered) - CBC: - WBC: 8.6k (61% lymphocytes, 31% neutrophils) - Hb: 15.3 g/dL - Hct: 48.1% - Plts: 222k - Electrolytes: - Na: 139 mmol/L - K: 4.2 mmol/L - Cl: 102 mmol/L - HCO3: 25 mmol/L	- Chest X-ray (AP and lateral): normal	

ADDITIONAL COMMENTS including Moulage Information

Moulage: feverish

- The main core competency is high index of suspicion for COVID-19 and implementing key protective and control measures including appropriate PPE use, contacting tracing, proper quarantining, advice to the chain of command.

- Specific Objectives could include:
• Recognize the suspected patients early and rapidly
• Apply appropriate source control
• Apply routine Infection Prevention and Control (IPC) for all patients
• Collaborate and communicate with the health care facility's IPC infrastructure
• Apply standard precautions according to presumed diagnosis at all times
• Perform a primary assessment of a patient with suspected acute respiratory infection
• Distinguish between severe acute respiratory infection and acute respiratory infection
• Obtain specimen for laboratory test according to safety procedures
• Triage the patient according to the general principles for patients with suspected COVID-19 infection
• Obtain patient history on close contacts (berthing mates, co-workers, etc.)
• Advise on requirement for patient to quarantine
• Coordinate safe patient transfer
• Doff PPE according to procedure

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

U. SEB Intoxication Simulated Patient Files

1. SEB Intoxication Survivor

2. SEB Intoxication Non-Survivor

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template U1. SEB Intoxication Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(to MEL/MIL scripter: patient requires a story that explains exposure around 14 hours ago, e.g. a routine patrol)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	125	80	22/min	95%	Alert	3	5	6	

M		
I		no visible injuries
S		3-4 hour history of nonproductive cough, moderate dyspnea, mylagia, headache, fever, and chills
T	<c>	**M**
	A	**A** Protected, clear, laminar airflow bilaterally
	B	**R** Mild to moderate dyspnea, lungs are clear, no evidence of obstruction, consolidation and respiratory fatigue
	C	**C** Normotensive, no orthostatic hypotension, IV started -TKO
	D	**H** Anxious, fatigued, can take oral fluids and meds
	E	**E** No signs of trauma, skin warm, no skin rashes

A	None
M	Motrin every 4-6 hours by mouth as needed
P	History of lower back pain
L	Breakfast using MRE - omelet, sausage, coffee
E	
C	Anxious
R	Slightly elevated for the past 2-3 hours
E	Conjunctival injections, pupils normal and reactive
S	Warm
S	Fast pulse, fever

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Non-applicable. Patient was in quarters and walked over to the MTF

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	125	80	22/min	95%		3	5	6	

List of injuries (or disease findings):

- No injuries
- See History of presenting illness

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-14:00H	Returned from routine patrol, felt well
-3:00H	Started to feel feverish, sluggish, with myalgia and chills
0:00H	Arrives at MTF and triaged. Informed chain of command of possible biological attack or accidental exposure on patrol
+1D	Feeling better, fever managed by cold compresses, acetaminophen, oral fluids, reduced cough, no sporadic nausea and vomiting (wants to get back to work)
+2D	Discharged with limitations on activity for 1 week, still has mild cough, fatigue and anorexia Told to return to MTF if symptoms persist or get worse.
+3D	Patient for follow-up

EXPECTED OUTCOME OF CASE

Progressive recovery with appropriate supportive care with follow-up

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

- Blood cultures: pending
- PCR / immunoassay obtained from a nasal swab: positive for enterotoxin B (available in 24 hours)
- EKG: normal sinus rhythm (if ordered)
- CBC:
  - WBC: 15.6k
  - Hb: 14.4 g/dL
  - Hct: 47.3%
  - Plts: 192k
	- Chest X-ray (AP and lateral): normal	

ADDITIONAL COMMENTS including Moulage Information

Patient is likely "non-contaminated" given that exposure would have occurred 8-20 hours prior to the onset of symptoms. Conversely, if the victim had not showered or changed clothes during the intervening timeframe, it is possible that resudual toxin on clothing may pose some risk to treating personnel.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template U2. SEB Intoxication Non-Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)	

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(to MEL/MIL scripter: patient requires a story that explains exposure around 16 hours ago, e.g. a routine patrol)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	110	70	28/min	90%	Alert	3	4	6	

M		
I		no visible injuries
S		Night sweats, woke up in morning complaining of 3-4 hour history of nonproductive cough, moderate dyspnea, mylagia, headache, fever, and chills
T	**<c>**	**M**
A	**A**	Protected, clear, laminar airflow bilaterally
B	**R**	Moderate to severe dyspnea, bilateral respiratory and expiratory rales, no evidence of obstruction, consolidation, some accessory muscle use, no signs of cyanosis
C	**C**	Normotensive, orthostatic hypotension, IV started - 500cc bolus given
D	**H**	Anxious, fatigued, confused
E	**E**	No signs of trauma, skin warm, no skin rashes, no peripheral cyanosis

A	None
M	Acetaminophen for fever every 4-6 hours by mouth as needed, vitamins
P	Generally healthy
L	Evening meal yesterday at mess (chicken, salad, French fries, coffee). No breakfast this am (loss of appetite)
E	
C	Anxious
R	Slightly elevated for the past 2-3 hours
E	Conjunctival injections, pupils normal and reactive
S	Warm
S	Fast pulse, fever

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Role 1 Treatment
- Non-steroidal anti-inflammatory for muscle / joint pain (e.g. Motrin)
- Oxygen
- Transported from Role 1 to Role 2 due to concerns over oxygen saturation and progression

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
140	110	70	28/min	88%		3	4	6	

List of injuries (or disease findings):

- No injuries
- See History of presenting illness

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-1D	Returned from routine patrol, felt well
-3:00H	Started to feel feverish, sluggish, with myalgia and chills
0:00H	Presented to Role 1. Decision to transport to Role 2. Arrives at MTF and triaged. Informed chain of command of possible biological attack or accident exposure on patrol
+12:00H	Decision to transport patient to Role 2 by road ambulance
+14:00H	Arrives at Role 2. During MEDEVAC, patient's condition started to deteriorate
+16:00H	Patient nonresponsive to supportive treatment, continues to deteriorate, developing worsening hypoxemia and tachypnea
+18:00H	Develops signs and symptoms of ARDS, with hypotension, hypoxaemia and, ultimately, collapse

EXPECTED OUTCOME OF CASE

Death despite intensive therapy with oxygen then with ventilation/intubation, broad spectrum antibiotics and fluids. Role 1 checks the condition of the other members of the patrol. Role 2 asks for updates from Role 1. Takes steps to safely transport the body back to Role 4 (home country).

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

- Blood cultures: pending
- EKG: sinus tachycardia
- PCR / immunoassay obtained from a nasal swab: positive for enterotoxin B (results after death)
- CBC:
  - WBC: 17.2k
  - Hb: 13.9 g/dL
  - Hct: 45.2%
  - Plts: 213k
	- Chest X-ray (AP and Lateral): patches of pulmonary edema and Kerley's B lines suggesting interstitial edema	

ADDITIONAL COMMENTS including Moulage Information

Patient is likely "non-contaminated" given that exposure would have occurred 8-20 hours prior to the onset of symptoms. Conversely, if the victim had not showered or changed clothes during the intervening timeframe, it is possible that residual toxin on clothing may pose some risk to treating personnel.

Moulage: feverish

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

V. Smallpox Simulated Patient Files

1. Smallpox Survivor

2. Smallpox Non-Survivor

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template V1. Smallpox Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☑ CONTAGIOUS ☑ Contact ☐ Droplet ☑ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

No known exposures to toxins, burn pits, or other environmental hazards. No relevant PMH. (note to MEL/MIL scripter: if you want the training audience to identify how exposure occurred (10-14 days ago), you will need to insert some hints)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
94	117	68	24	97%	Alert	4	4	6	Exhausted, with severe headache

M

I No obvious injuries

S Rigors, headache & backache, fatigue

T <c> **M** None

A	**A**	Patent/Clear
B	**R**	None necessary
C	**C**	IV fluids may be administered
D	**H**	Severe
E	**E**	N/A

A	No known allergies
M	None (malaria prophylaxis in some scenarios)
P	Generally healthy active duty servicemember
L	Garrison meals yesterday; vomiting and loss of appetite today
E	Awoke this morning with shaking chills and a severe headache.
C	Listless, exhausted
R	Mild tachypnea related to fever
E	Normal
S	Dry mucous membranes
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Acetominophen or Ibuprofen may be provided for fever and pain.
IV fluids may be adminstered.
No other treatment is necessary prior to arrival at MTF.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
102*	115	65	25	96%	Alert	4	4	6	

List of injuries (or disease findings):

*HR might be lower (84) if IVFs had been administered.

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

First 48 hours	Fevers, rigors, headache, backaches persist.
D+2	Erythematous macules are noted on face, hands, forearms.
D+3	Macules (which are now prominent on the lower extremities as well as the upper) have become papules and spread to the trunk.
D+4	Papules have become vesicles.
D+5, D+6	Vesicles have become purulent, then tense and extremely painful. Fever, which may have abated somewhat over past few days, again spikes to 40C (104F).
D+7	Vesicles are widespread over entire body, including tongue and mucous membranes, and appear umbilicated.
D+9	Vesicles begin to form scabs; fever breaks.
D+28	Last scabs have separated, leaving widespread scars.

EXPECTED OUTCOME OF CASE

Survival with widespread scarring after a prolonged (month-long) course.
Tecoviramat might be administered upon recognition of the appropriate diagnosis. The medication may be difficult to procure; arrangements for procural should me made ASAP.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
CBC (if obtained): 11.2k WBC with 10% PMNs; H/H = 14.2/46.6; platelets = 117k.	No imaging is required. A CXR, if obtained, is normal.	

ADDITIONAL COMMENTS including Moulage Information

Patient is condsidered "non-contaminated" given that exposure would have occurred ~10-14 days prior to the onset of symptoms.

No moulage is necessary initially, but widespread macules/papules/vesicles/scabs might be simulated in later stages of disease.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template V2. Smallpox Non-Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☑ CONTAGIOUS ☑ Contact ☐ Droplet ☑ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

No known exposures to toxins, burn pits, or other environmental hazards. No relevant PMH. (note to MEL/MIL scripter: if you want the training audience to identify how exposure occurred (10-14 days ago), you will need to insert some hints)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
101	122	74	24	95%	Alert	4	4	6	Listless, with severe headache

M

I No obvious injuries

S Rigors, headache & backache, fatigue

T <c> **M** None

A **A** Patent/Clear

B **R** None necessary; oxygen may be given

C **C** IV fluids may be administered

D **H** Severe

E **E** N/A

A No known allergies

M None (malaria prophylaxis in some scenarios)

P Generally healthy active duty servicemember

L Little appetite yesterday; vomiting and lethargy today

E Awoke this morning with shaking chills and a severe headache

C Listless, lethargic

R Mild tachypnea related to fever

E Normal

S Dry mucous membranes

S Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

Acetominophen or Ibuprofen may be provided for fever and pain.
IV fluids may be adminstered. Oxygen may be provded via nasal cannula, but is not required.
No other treatment is necessary prior to arrival at MTF.

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
106	120	68	26	96%	Verbal	3	4	6	

List of injuries (or disease findings):

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

First 48 hours	Fevers, rigors, headache, backaches persist. Patient remains listless.
D+2	Erythematous macules are noted on face, hands, forearms.
D+3	Macules (which are now prominent on the lower extremities as well as the upper) have become papules and spread to the trunk.
D+4	Papules have become vesicles.
D+5, D+6	Vesicles have become purulent, then tense and extremely painful. High fevers (to 40C) continue.
D+7	Vesicles are widespread over entire body, including tongue and mucous membranes, are becoming confluent, and appear umbilicated.
D+9	Patient becomes delirious.
D+10	Death ensues.

EXPECTED OUTCOME OF CASE

Fatal.
Tecoviramat might be administered upon recognition of the appropriate diagnosis. The medication may be difficult to procure; arrangements for procural should me made ASAP, but are futile in this case.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**
CBC (if obtained): 12.7k WBC with 6% PMNs; H/H = 12.2/38.4; platelets = 88k.	No imaging is required. A CXR, if obtained, is normal.	

ADDITIONAL COMMENTS including Moulage Information

Patient is condsidered "non-contaminated" given that exposure would have occurred ~10-14 days prior to the onset of symptoms.

No moulage is necessary initially, but widespread macules/papules/vesicles might be simulated in later stages of disease.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

W. T-2 Mycotoxicosis Simulated Patient Files

1. T-2 Mycotoxicosis Survivor

2. T-2 Mycotoxicosis Non-Survivor

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template W1. T-2 Mycotoxicosis Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(to MEL/MIL scripter: patient requires a story that explains exposure last night)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	120	80	28/min	88%	Alert	4	5	6	Temp 36.2C

M		
I		Skin is irritated, signs of illness as below
S		Woke up in middle of night with vomiting, diarrhea, dyspnea, skin irritation.
T	**<c>**	**M**
	A	**A** Protected, clear, laminar airflow bilaterally
	B	**R** Moderate to severe dyspnea, bilateral respiratory and expiratory rales, no evidence of obstruction, consolidation, some accessory muscle use, no signs of cyanosis
	C	**C** Normotensive, but with orthostatic hypotension, IV started - 500cc bolus given
	D	**H** Anxious, fatigued, confused
	E	**E** No signs of trauma, skin warm and erythematous, with early blister formation. No peripheral cyanosis

A	None
M	Vitamins
P	Generally healthy
L	Evening meal yesterday at mess (chicken, salad, French fries, coffee). No breakfast this morning (loss of appetite)
E	
C	Anxious
R	Slightly elevated for the past 2-3 hours
E	Conjunctival injections, photophobia, corneal irritation
S	Drooling
S	Erythema over exposed skin

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

- Non-steroidal anti-inflammatory for muscle / joint pain (e.g. Motrin)
- Transported from Role 1 to Role 2 due to concerns over oxygen saturation
- Oxygen should be administered via face mask of nasal cannula

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
140	106	65	28/min	92%	Alert	4	5	6	Temp 36.3C

List of injuries (or disease findings):

- No injuries
- See History of presenting illness

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-7:00H	Returned from routine patrol, felt well.
-4:00H	Onset of nausea, vomiting, diarrhea, shortness of breath.
0:00H	Arrives at MTF and triaged. Informed chain of command of possible biological attack or accidental exposure on patrol. Oxygen continued, eyes patched after copius irrigation and administration of ophthalmic anaesthetic drops.
+24:00H	Eye patches removed; eyes remain red (conjunctival injection) but less painful.
+3D	Oxygen slowly weaned; patient feeling better, oral fluids tolerated, sporadic nausea and vomiting slowly improving, skin remains erythematous and irritated, with numerous blisters.
+5D	Discharged with limitations on activity for 1 week, still has mild cough, fatigue, anorexia. Told to return to MTF if symptoms persist or worsen.

EXPECTED OUTCOME OF CASE

Progressive recovery with appropriate supportive care with follow-up. Skin lesions may take 2 weeks to resolve.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

- Blood cultures: pending
- Urine assay for T-2 mycotoxins can be sent to USAMRIID or other national reference laboratories; results would not likely be available in time to make clinical decisions
- EKG: normal sinus rhythm (if ordered)
- CBC (on admission)*:
  - WBC: 10.2k with 37% PMNs
  - Hb: 15.7 g/dL
  - Hct: 50.1%
  - Plts: 278k
 	
*T-2 exposure leads to bone marrow suppression; CBCs obtained later in the course of illness would likely reveal lower WBC counts, platelet counts, and Hb/Hct.
	- Chest X-ray (AP and lateral): normal	

ADDITIONAL COMMENTS including Moulage Information

T-2 is not contagious. However, its very short latent period (2-4 hours in most cases, less in case of a heavy exposure) dictates that victims may present shortly after exposure, when active toxin may still be present on their person and clothing.

- Detection: the main core competency is high index of suspension for some form of Bio attack after assessing the patient.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template W2. T-2 Mycotoxicosis Non-Survivor	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☐ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(to MEL/MIL scripter: patient requires a story that explains exposure last night)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	125	80	28/min	95%	Alert	4	5	6	

M

I Skin and eyes irritated

S Rapid onset eye irritation and skin lesions

T <c> **M**

A	**A**	Open, no acute distress
B	**R**	No acute distress
C	**C**	Normotensive
D	**H**	Anxious, fatigued, can take oral fluids and meds
E	**E**	No signs of trauma, skin warm, no skin rashes

A	None
M	Motrin for fever every 4-6 hours by mouth as needed, force protection, MOPP level 0
P	History of lower back pain
L	Lunch at mess - spaghetti
E	
C	Anxious
R	Slightly elevated for the past 2-3 hours
E	Conjunctival injections, pupils normal and reactive
S	Warm
S	Redness of exposed facial area

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

- Eye irrigation with normal saline
- Exposed area decontamination with RSDL
- Original clothing and gear removed and sealed

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
132	100	70	32/min	88%	Verbal	3	4	5	

List of injuries (or disease findings):

- No injuries
- Transfered from FOB with aid station by road ambulance
- During trip, patient's condition began to deteriorate
- Management received before arrival at MTF: immediate removal from area and decon; IV 1 litre normal saline bolus then 500cc/hr
- Oxygen 5 liters by mask
- No medications or other medical countermeasures given

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-3:00H	On patrol - encountered "white fog" from routine patrol [story can be changed by MEL/MIL scripter]. Immediate eye irritation and cough.
-2:45H	Rapid evacuation; eye irrigation; clothing removal and decon of exposed areas.
-2:00H	Arrived at aid station and triaged. Skin redness (unexposed area), sore throat and worsening eye irritation. Informed chain of command of possible biological attack or accidental exposure on patrol. Transferred to MTF (Role 2) as a cautionary measure.
0:00H	At MTF - increasing dyspnea, wheezing; stomach pain with associated vomiting and diarrhea. Given Ciprofloxacin 400mg iv every 8 hours and Clindamycin 900mg iv every 8 hours on spec.
+12:00H	Despite supportive therapy, symptoms progress noted by increasing heart rate, hypothermia, hypotension, and bloody diarrhea.
+16:00H	ARDS, hypotension, hypoxemia and collapse.

EXPECTED OUTCOME OF CASE

Death despite intensive therapy with oxygen then with ventilation/intubation, broad spectrum antibiotics and fluids. Role 1 checks the condition of the other members of the patrol. Role 2 asks for update from Role 1. Takes steps to safely transport the body back to Role 4 (home country).

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

- CBC:
  - WBC: 12.6k with 39% PMNs
  - Hb: 14.8 g/dL
  - Hct: 46.7%
  - Plts: 234k
- Arterial blood gas:
  - pH: 7.32
  - pO2: 85 kPa
  - pCO2: 19 kPa
- Blood for cultures and PCR
- Serum for serologic studies
- Sputum for bacterial cultures
- Blood / urine for toxin assay
- Throat swab for viral culture
- Throat swab for PCR / ELISA
- Stool sample for culture
- Stool sample for O & P
- Vital signs monitoring
- EKG: sinus tachycardia
	- Chest X-ray: diffuse interstitial infiltrates	

ADDITIONAL COMMENTS including Moulage Information

T-2 is not contagious. However, its very short latent period (2-4 hours in most cases, less in case of a heavy exposure) dictates that victims may present shortly after exposure, when active toxin may still be present on their person and clothing.

Agent is unknown but high probability of biological / toxin attack; Requires stepwise approach to a potential biological casualty.
1. Maintain a healthy index of suspicion
2. Protect your self (must be assessed for the entire initial exposure, first aid, transport & MTF)
3. Save patient's life
4. Disinfect or decontaminate as appropriate
5. Establish diagnosis (if possible) - may need to treat empirically
6. Provide prompt therapy (this be empirically for suspected BW along with supportive therapy)
7. Institute proper infection measures
8. Alert proper authorities
9. Epidemiological investigation / Manage psych after math of BW attack
10. Maintain a level of proficiency

REF: Lenhart M.K. et al. (2007) Medical Aspects of Biological Warfare. Office of the Surgeon General, Department of the Army, Falls Church, Virgina) USA.

KEY POINT for this scenario is to treat empirically based on presumption of a BW attack

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

X. Tularaemia Simulated Patient Files

1. Pneumonic Tularaemia Survivor

2. Pneumonic Tularaemia Non-Survivor

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template X1. Pneumonic Tularaemia Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(some explanation of how the person was exposed 2-7 days ago; explanation must be suitable for pneumonic tularaemia e.g., bio attack or some exceptional natural circumstances)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	115	70	28/min	92%	Alert	4	5	6	Temp: 38.9C

M			
I		Seen two days ago and diagnosed with "flu"	
S		Fatigue, non-productive cough, sweating, general malaise	
T	**<c>** **M**	Reception provided N95 mask and immediately placed him in an examination room. No other intervention provided	
	A **A**	Protected, clear, laminar airflow bilaterally	
	B **R**	Difficulty breathing, progressively worse over the past 2 to 3 days	
	C **C**	Normotensive, orthostatic hypotension, capillary refill	
	D **H**	Looks unwell, otherwise alert and oriented to person, place, and time	
	E **E**	No signs of trauma, skin warm, no skin rashes, no peripheral cyanosis, swollen bilateral axillary lymph nodes	

A	None
M	Acetaminophen every 4-6 hours for 12 hours, vitamins
P	Generally healthy, nonsmoker
L	1 day ago - breakfast only. Has not eaten since (no appetite)
E	Initially seen by HCP and diagnosed with flu (dry cough, fatigue, fever) given bed rest in quarters, push oral hydration. If no improvement, follow up in 2 days
C	Awake, alert, but looks unwell
R	Difficulty breathing at rest, progressively worse over the past 2 to 3 days
E	Pupils normal and reactive
S	None
S	Dry, warm

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

- Acetaminophen for fever (e.g. Tylenol)
- Directed by supervisor to go to sick call work space because he appeared unwell (fatigued, visible sweating)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
122	110	68	30/min	92%	Alert	4	5	6	Temp 39.2C

List of injuries (or disease findings):

- No injuries
- Malaise and anorexia for 2 to 3 days
- Cough (non-productive)
- Chest pain particularly on inspiration
- Moderate headache

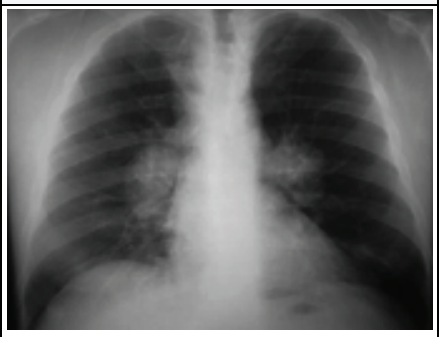
CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-48:00H	Woke up feeling unwell, cough, sweating, poor appetite. Seen by HCP and diagnosed with flu. Discharged to quarters for rest and oral hydration. Patient was able to isolate. To return in 2 to 3 days if worsening symptoms.
-24:00H	Cough becoming worse, with accompanying shortness of breath, no appetite, fever (treated with acetaminophen).
0:00H	Returned to clinic - with symptoms worsening over past 48 hours. Masked, started on supplemental oxygen by mask and placed in isolated room and referred to physician.
+0:10H	Alert and oriented X 3 - looks unwell. Complete history and physical. Orthostatic hypotension, tenting of skin, nonproductive cough, malaise, bilaterally axillary lymphadenopathy, no skin lesions, pupils equal and reactive, mouth dry, no secretions.
+0:15H	IV X 2 (one TKVO other for normal saline 200 to 250cc bolus then 100cc/hr). Screening and tests ordered: CBC differential, blood and sputum cultures, electrolytes, liver function tests, BUN, creatinine, Gram stain, chest X-ray AP and lateral (CT unavailable).
+0:30H	CBC shows elevated white count, Gram stain of sputum shows short gram-negative rods. CXR bilateral hilar lymphadenopathy and patchy infiltrates.
+0:40H	Started on IV gentamicin 5mg/kg every 8 hours for 7 to 10 days. Monitoring and continue with supplemental oxygen and antipyretic. Consult ID expert and prepare patient for transfer to hospital setting.
+1:00H	Medical staff informs chain of command of the situation. Consider tularemia as likely diagnosis, attempt to identify source (endemic exposure or bio-terrorist attack).

EXPECTED OUTCOME OF CASE

Progressive recovery requiring supportive, monitoring, iv antibiotics (primary gentamicin or streptomycin) for severe illness. Consider ciprofloxacin 500mg orally for 12 hours as pre- and post-exposure medical countermeasure.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

- CBC:
  - WBC: 18.7k with 72% PMNs
  - Hb: 15.2 g/dL
  - Hct: 49.9%
  - Plts: 213k
- Gram stain of sputum: tiny gram-negative coccobacilli
- Electrolytes: normal
- Liver function: normal
- Renal function: normal
- O2 sat: 92% (94% on oxygen)
- EKG: sinus tachycardia (if ordered)
	- Chest X-ray (AP and lateral): pleural exudative effusions with bilateral hilar adenopathy and infiltrates	

ADDITIONAL COMMENTS including Moulage Information

Patient is considered "non-contaminated" given that exposure would have occurred 2-7 days prior to the onset of symptoms.

The main core competency is high index of suspicion for tularemia as part of a broader differential diagnosis. Also, the presentation of pneumonic tularemia is nonspecific and could be caused by a number of infectious agents (e.g. tuberculosis).

The healthcare team should be able to put some key findings together to help rule out other causes of pneumonia such as non-productive cough along with bilateral auxiliary tender and enlarged lymph nodes, chest X-ray findings, positive Gram stain, and fever.

Information to the chain of command and professional technical network. Consideration of use of medical countermeasures available etc.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template X2. Pneumonic Tularaemia Non-Survivor)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T1

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☑ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS ☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(some explanation of how the person was exposed 2-7 days ago; explanation must be suitable for pneumonic tularaemia e.g., bio attack or some exceptional natural circumstances)

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	110	70	28/min	90%	Alert	4	4	5	Temp: 39.4C

M			
I	24 hour history of worsening symptoms - tent mate brought patient to clinic		
S	Fatigue, non-productive cough, sweating, disoriented, headache, general malaise		
T	**<c>**	**M**	Immediately triaged as critical
	A	**A**	Protected, decreased air entry, rales
	B	**R**	Difficulty breathing, progressively worse over the past 24 hours
	C	**C**	Normotensive, mild orthostatic hypotension
	D	**H**	Looks unwell, difficult to rouse and is not oriented to person, place, and time
	E	**E**	Skin hot, no skin rashes, peripheral cyanosis, swollen tender bilateral axillary, and submandibular lymph nodes

A	None
M	Vitamins, protein supplements
P	Generally healthy, nonsmoker, no drug allergies
L	1 day ago - breakfast only. Has not eaten since (no appetite)
E	
C	Awake, drowsy, looks unwell
R	Difficulty breathing at rest - mediastinal chest pain worse on inspiration
E	Conjunctival injections, pupils normal and reactive
S	Normal
S	Hot, diaphoretic, bluish skin color in fingers, lips

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

- Nil

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
124	106	64	34/min	86%	Alert	3	4	5	Listless

List of injuries (or disease findings):

- No injuries
- Malaise and anorexia X 24 hours
- Cough (non-productive)
- Chest pain particularly on inspiration
- Bilateral axillary lymphadenopathy
- Moderate headache

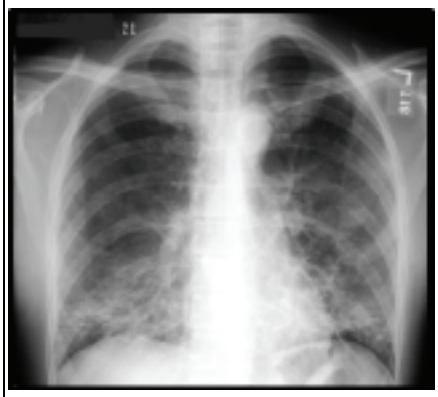
CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-24:00H	Woke up feeling unwell, cough, sweating, poor appetite. Rapidly worsening over the day. Brought to clinic by 2 tent mates as patient was very drowsy, difficult to wake and to bring to the clinic
0:00H	Presents cyanotic, drowsy, and disoriented, with significant respiratory related symptoms and signs. Given anti-pyretic and started on IV hydration (e.g. normal saline 200 to 250cc bolus then 100cc/hr). Triaged to critical care, isolated and started on supplement oxygen by nasal-prongs
+0:05H	Drowsy & disoriented - looks unwell, febrile. Rapid and focused history and physical. Orthostatic hypotension, nonproductive cough, malaise, bilaterally axillary & submandibular lymphadenopathy, no skin lesions, pupils equal and reactive, mouth dry, no secretions.
+0:10H	Start second IV. Screening and tests ordered: CBC differential, blood and sputum cultures, arterial blood gas, electrolytes, INR, PT aPTT, D-dimer, liver function tests, BUN, creatinine, Gram stain, chest X-ray AP and lateral (CT unavailable). Monitor vitals, O2 sats, EKG
+0:15H	Patient rapidly becomes less responsive (GCS = 9). Patient is intubated and ventilated using rapid induction protocol. Blood gases are abnormal (showing respiratory acidosis and O2 sat 88%). NG tube and urinary catheter inserted
+0:30H	Initial CBC shows elevated white count with leukocytosis. Gram stain shows short gram-negative rods. CXR: lower lobe bilateral consolidation, hilar lymphadenopathy. Started on broad spectrum antibiotics (e.g. carbapenem, piperacillin-tazobacta) and if tularemia suspected started on IV gentamicin 7mg/kg every 8 hours for 14 days. Also suspect early sepsis.
+1:00H	Despite adequate fluid resuscitation, BP drops 80 mmHg/pulse, MAP < 70 mmHg. Urine output has decreased. Arterial line inserted with difficulty. Started IV vasopressors (i.e. norepinephrine)
+3:00H	Despite efforts, there are increasing signs of end-organ failure (e.g. decrease to no urine output), central cyanosis, cool skin patient, increased hypotension despite use of vasopressors.

EXPECTED OUTCOME OF CASE

Despite efforts, patient dies. Medical staff turn attention to epidemiological investigation. The constitution of signs and symptoms suggest pneumonic tularaemia. Medical staff informs chain of command of the situation, search for additional cases begins in earnest.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

- CBC:
  - WBC: 21.2k with 81% PMNs
  - Hb: 13.4 g/dL
  - Hct: 39.7%
  - Plts: 88k
- Arterial blood gas:
  - pH: 7.28
  - pO2: 84 kPa
  - pCO2: 29 kPa
  - HCO3: 18 mmol/L
- Serum lactate: 5.5 mmol/L
- Gram stain of sputum: tiny gram-negative coccobacilli
- Electrolytes:
  - Na: 137 mmol/L
  - K: 3.9 mmol/L
  - Cl: 104 mmol/L
  - HCO3: 17 mmol/L
- Liver function:
  - Alk phos: 136 U/L
  - SGOT: 44 U/L
- Renal function:
  - BUN: 43 mg/dL (15.4 mmol/L)
  - Creatinine: 1.2 mg/dL (0.43 mmol/L)
- O2 sat: 90% but falls as patient decompensates
- EKG: sinus tachycardia transitioning to bradycardia and asystole
	Chest X-ray: bilateral lower lobe pneumonia
	 	

ADDITIONAL COMMENTS including Moulage Information

Patient is considered "non-contaminated" given that exposure would have occurred 2-7 days prior to the onset of symptoms.

The main core competency is high index of suspicion for tularaemia as part of a broader differential diagnosis. Also, the presentation of pneumonic tularemia is nonspecific and could be caused by a number of infectious agents (e.g. tuberculoses).

The healthcare team should be able to put some key findings together to help rule out other causes of pneumonia such as non-productive cough along with bilateral auxiliary and submandibular tender and enlarged lymph nodes, chest X-ray findings, gram stain, and fever.

Identify sepsis and treat appropriately; this scenario could be played such that prompt recognition and institution of appropriate antibiotic therapy might lead to survival.

Information to the chain of command and professional technical network. Consideration of use of medical countermeasures if available etc.

After action with staff for review of case, discuss emotions and watch for signs of mental distress.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

Y. Venezuelan Equine Encephalitis Disease Simulated Patient File

1. Venezuelan Equine Encephalitis Virus Disease Survivor—Febrile

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template Y1. Venezuelan Equine Encephalitis Virus Disease Survivor—Febrile)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T2

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ.

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
130	98	62	24/min	96%	Verbal	3	4	5	Temp: 40.6C

M			
I			Disoriented, drowsy, sweating, no signs or history of trauma
S			Fatigue, sweating, disoriented, headache,general malaise, gradually worsening over past 12 hours
T	**<c>**	**M**	Immediately triaged as critical
	A	**A**	Breathes spontaneously, good air entry
	B	**R**	Tachypnic, progressive over the past 12 hours
	C	**C**	Hypotension
	D	**H**	Looks unwell, drowsy and disoriented
	E	**E**	Skin appears mottled, warm to touch, no rashes no evidence of trauma, injury

A	No known allergies
M	Vitamins, protein supplements, no use of illicit drugs
P	Generally healthy, nonsmoker, family history of heart disease
L	Yesterday had supper, no breakfast meal today
E	
C	Drowsy, disoriented, no seizures, GCS = 12 (responds to speech, confused, moves with pain)
R	Mildly tachypnic, O2 sat normal
E	Conjunctival Injections, Pupils normal and reactive
S	Normal
S	Hot, diaphoretic

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

- Acetaminophen or NSAID for fever and myalgia
- IV fluids (crystalloid)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
120	114	77	20/min	96%	Verbal	3	4	5	Temp: 39.7C; drowsy

List of injuries (or disease findings):

- No injuries
- Malaise and anorexia for greater than 12 hours
- Initially presented more alert (at other medical facility) complaining of photophobia, headache, and mild neck stiffness

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-24:00H	Woke up feeling unwell, headache and photophobia, sweating, poor appetite. Went to see MO at Role 1 facility. Admitted for observation. Within about 12 hours, patient began to be confused, somnolent, and more lethargic. Decision to send to multinational Role 2.
0:00H	Presents drowsy and disoriented, febrile with neck pain/stiffness. At Role 1, given anti-pyretic and started on IV hydration (e.g. normal saline 200 to 250cc bolus than 100cc/hr).
+0:05H	Drowsy & disoriented - looks unwell, febrile. Rapid and focused history and physical - febrile, no skin lesions, pupils equal and reactive, mouth dry, no secretions.
+0:10H	Screening tests may be ordered: CBC differential, blood for cultures, and serum for toxin assays and pathogen identification. Electrolytes, INR, PT aPTT, liver function tests, BUN, creatinine, urine sample. Chest X-ray AP and lateral, CT of head (if available, to rule out space occupying lesion). Monitor vitals, O2 sats, EKG. CSF opening pressure, CSF for analysis including PCR to rule out other pathogens (e.g. CSF PCR HSV-1, HSV-2, and enteroviruses).
+0:15H	Patient may be started empirically on antivirals (e.g. acyclovir) and broad spectrum antibiotics.
+24:00H	Patient remains febrile but stable. Disorientation has resolved. Antivirals and antibiotics may be continued pending definitive diagnosis.
+48:00H	Considerable improvement. Continued monitoring. Physical exam shows normal cranial nerves, mild muscle weakness. Concomitant investigation of possible exposure , and monitoring for other casualties. Chain of command informed of clinical suspicion and patient status.
short term	Eventually patient returned to normal and was able to join his section. All samples were sent to Role 3 for further analysis. There is a high degree of certainty that the soldier was exposed alphavirus. Vaccination status was confirmed against alphaviruses.

EXPECTED OUTCOME OF CASE

Patient has full recovery. No neuropathology sequelae were noted.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

If ordered:
 	
- CBC:
  - WBC: 4.7k with 26% PMNs
  - Hb: 15.7 g/dL
  - Hct: 48.1%
  - Plts: 182k
- CSF:
  - Opening pressure: 22 cm H2O
  - WBC: 17
  - Protein: 156 mg/dL
  - Glucose 52 mg/dL
- Serology: within a month the hemagglutination inhibition assay (HAI) for VEEV confirmed diagnosis
	If ordered:
	
	- CXR: normal
	- CT scan of head: normal	

ADDITIONAL COMMENTS including Moulage Information

Patient is "non-contaminated" given that exposure would have occurred 2-6 days prior to the onset of symptoms.

The main core competency is to identify a biological syndrome and management of an encephalitic syndrome, but also the need to rule out sepsis. This includes steps to rule out and treat empirically possible infectious agents and identifying sepsis early. Early presentation of sepsis includes: blood pressure (BP) < 100 or lack of radial pulse (suggestive of septic shock); respiratory rate > 22 breaths per minute; altered mental status; and non-blanching rash, decreased capillary refill or skin mottling.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

Z. Western Equine Encephalitis Simulated Patient File

1. Western Equine Encephalitis Virus Disease Survivor—Febrile

JEMM NO	PATIENT NO	EVENT / PRESENTATION	DATE
		(template Z1. Western Equine Encephalitis Virus Disease Survivor—Febrile)	

LOCATION	NATIONALITY	ROLE	TRIAGE CATEGORY
		☐ Allied Military ☐ Enemy ☐ Insurgent ☐ Civilian	T3

KIND OF INJURY

☐ DISEASES	☐ NON-BATTLE INJURY	☐ BATTLE INJURY incl. CBRN

CASUALTY HAZARD TYPE

☑ NONE	☐ CONTAMINATED	☐ Chemical ☐ Biological ☐ Radiological	☐ CONTAGIOUS	☐ Contact ☐ Droplet ☐ Airborne (aerosol)

SHORT INCIDENT REPORT / AT-MIST FORMAT

ID / AGE ± NAME:	
TIME OF EVENT (DURATION OF ILLNESS):	
MECHANISM / HISTORY:	

HISTORY OF PRESENTING COMPLAINT / INJURIES:

Epidemiological remarks:

(to MEL/MIL scripter: suggest adding some hint to help training audience know whether the exposure was natural or intentional. The course of disease would not differ.

INITIAL SYMPTOMS AND/OR SIGNS

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	120	70	16/min	98%	Alert	4	5	6	Temp: 40.0C

M

I			Alert and oriented X 3, looks unwell, dyaphoretic, no trauma
S			Malaise, headache followed by fever with recent onset of nausea and vomiting
T	**<c>**	**M**	Looks sick, fever, vital signs normal, no bleeding, no signs of injury
	A	**A**	Breathes spontaneously, good air entry
	B	**R**	Normal
	C	**C**	Normal
	D	**H**	Looks unwell
	E	**E**	No focal neuro deficits

A	No known allergies
M	Ibuprofen for pain, antimalarials, no use of illicit drugs
P	Generally healthy, nonsmoker
L	Yesterday had supper, no breakfast meal today
E	Training occurring around a swampy area. Insect protective measures in place. Remembers getting bit a few times by mosquitoes.
C	Alert and oriented X 3 (person, place, time)
R	Normal
E	Conjunctival injections, pupils normal and reactive
S	No secretions
S	Normal

FIRST AID / TREATMENT GIVEN BEFORE ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

- Ibuprofen for myalgia (self-medicated according to directions on the bottle)

OBSERVATIONS ON ARRIVAL AT MEDICAL FACILITY (AS REQUIRED)

HR	NIBP		RESP	SATS	AVPU / GCS (EVM)				OTHER
90	130	90	14/min	98%	Alert	3	4	5	Drowsy

List of injuries (or disease findings):

EEE/WEE Non-Encephalitic Survivor

- Appears unwell
- Malaise and anorexia for greater than 12 hours
- Headache (no neck stiffness)
- Neuro exam: normal with the exception of listlessness and diminished responsiveness

CLINICAL TIMELINE using relative time to event i.e. +1:00H or +1D

-12:00H	Woke up feeling unwell, headache, fever, muscle pain and lethargy.
0:00H	On presentation, fever, headache for 12 hrs, muscle aches, lethargy, nausea. Focused, physical exam (neuro, respiratory) within normal limits except for listlessness and diminished responsiveness.
+0:20H	Place on acetaminophen and in observation until fever resolves. Routine blood and urine analysis. Blood sample for rapid diagnostic test (RDT) and blood smear ordered to rule out malaria (likely P. Vivax).
+1:00H	Febrile, remaining vital signs normal, feeling better after successful oral hydration.
+12:00H	Discharge from medical unit - provided medical restrictions due to fatigue. Directed to return if symptoms persist or get worse. Headache and fatigue persists.
+2 weeks	Headaches, fatigue, emotional lability may last for months; patient evacuated due to anticipated prolonged recovery period.

EXPECTED OUTCOME OF CASE

Patient has full recovery.

ASSOCIATED PATIENT INVESTIGATIONS including File Reference Format (e.g. 1A-Lab001)		
Laboratory	**Diagnostic Imaging**	**Photos and Other Details**

- CBC:
  - WBC: 4.8k with 20% PMNs
  - Hb: 15.1 g/dL
  - Hct: 44.7%
  - Plts: 161k
- Blood smear: normal
- RDT: negative		

ADDITIONAL COMMENTS including Moulage Information

Patient is "non-contaminated" given that exposure would have occurred 4-5 days prior to the onset of symptoms.

The main core competency is to consider alphavirus (WEEV is endemic in Brazil) in the differential diagnosis for fever and malaise in someone working and training in hot, humid climate near swampy areas. Also, while in observation, the patient should be monitored for early sepsis that includes the following: blood pressure (BP) < 100 or lack of radial pulse (suggestive of septic shock); respiratory rate > 22 breaths per minute; altered mental status; and non-blanching rash, decreased capillary refill or skin mottling.

SCENARIO GOVERNANCE
Exercise Objectives:
Training Objectives:
Experimental Objectives:

CASE SPECIFIC LEARNING OBJECTIVES / OUTCOMES	
Safety	**Patient Assessment**
☐ Casualty handling ☐ In facility patient transfers ☐ Crisis resource management	☐ Trauma primary and secondary surveys
Clinical Management	**Investigations and Administration**
☐ DCR ☐ DCS	☐ Facility admission ☐ Patient tracking handovers and reporting ☐ PECC/MTF reporting ☐ Patient evacuation

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Approved for public release; distribution unlimited.

13. SUPPLEMENTARY NOTES

14. ABSTRACT

This handbook provides individuals who plan and execute NATO exercises with the resources to accomplish cross-disciplinary chemical, biological, radiological, and nuclear (CBRN) defence and medical training, whether or not CBRN medical support is a primary focus of the exercise. For such training to be successful, a level of CBRN medical expertise is required for certain exercise planning tasks, but the individuals responsible for those tasks are often experts in areas other than CBRN medical support and lack ready access to CBRN medical expertise. To address this need, this handbook provides exercise planning materials created by CBRN medical subject matter experts to assist non-experts in exercise development. This handbook combines information on the NATO exercise process described in Bi-Strategic Command Collective Training and Exercise Directive 075-003 with information from NATO CBRN defence doctrine and NATO medical support doctrine. It also informs readers of the relevant exercise support functions, courses and training events, and lessons learned roles of NATO's Centres of Excellence in CBRN defence and military medicine.

15. SUBJECT TERMS

Exercise, handbook, training, CBRN, medical, NATO

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