

GLOSSARY

Section I. ABBREVIATIONS AND BREVITY CODES

AC	hydrogen cyanide (also called hydrocyanic acid)
AFM	Air Force manual
AFP	Air Force pamphlet
AMEDD	Army Medical Department
AMEDDC&S	Army Medical Department Center and School
app	appendix
AR	Army regulation
BAL	British anti-lewisite (dimercaprol)
BAS	battalion aid station
BDU	battle dress uniform
BZ	incapacitating agent
C	Celsius/centigrade
CA	bromobenzylcyanide (riot control agent)
CAM	chemical agent monitor
CANA	convulsant antidote for nerve agent (diazepam)
CG	phosgene (lung-damaging/choking agent)
CK	cyanogen chloride
CLS	combat lifesaver
CN	chloroacetophenone (riot control agent)
CNC	chloroacetophenone in chloroform (riot control agent)
CNS	central nervous system
CO	carbon monoxide
CPS	collective protection shelter
CR	dibenz-(b,f)-1,4-oxazepine (riot control agent)
CS	O-chlorobenzylidene malononitrile (riot control agent)
CSR	combat stress reaction
CW	chemical warfare
CWC	Chemical Weapons Convention
CX	phosgene oxime (blister agent)
DA	diphenylchloroarsine (vomiting agent); Department of the Army
DC	diphenylcyanoarsine (vomiting agent)
DD/DOD	Department of Defense
DM	diphenylaminochloroarsine (Adamsite) (vomiting agent)
DNA	deoxyribonucleic acid
DP	diphosgene (choking agent)
DPIE	decontamination packet, individual equipment (M295)
DMAP	4-dimethylaminophenol-hydrochloride
DS2	decontaminating solution number 2 (a corrosive decontaminating solution)
EEG	electroencephalogram
EMT	emergency medical treatment
F	Fahrenheit
FDA	Food and Drug Administration
fig	figure
FM	titanium tetrachloride; field manual (when used with a number)
FMFM	Fleet Marine Force manual
FMTF	field medical treatment facility
FS	sulfur-trioxide chlorosulfonic acid solution (smoke mixture)

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GA	Tabun (a G-agent)
G-agent	a nerve agent
GB	Sarin (a G-agent)
GD	Soman (a G-agent)
GF	a nerve agent
gm	gram(s)
H	European countries term for HD (sulfur mustard)
HC	a mixture of grained aluminum, zinc oxide, and hexachloroethane (a smoke producer)
HD	sulfur mustard (a blister agent)
HL	mustard/lewisite mixture
HN	nitrogen mustard (a blister agent)
HN1	type of HN (mustard)
HN3	type of HN (mustard)
IAW	in accordance with
IM	intramuscular
IPE	individual protective equipment
IPPB	intermittent positive pressure breathing
IV	intravenous
L	lewisite (a blister agent)
LCt	lethal concentration
LSD	d-lysergic acid diethylamide
MES	medical equipment sets
MG/mg	magnesium; milligram(s)
ml	milliliter(s)
mm ₃	millimeter(s)
mm	millimeter(s) cubed
MOPP	mission-oriented protective posture
MRE	meal, ready to eat
MTF	medical treatment facility
NAAK	Nerve Agent Antidote Kit (MARK I) containing atropine and 2 PAM C1
NAPP	Nerve Agent Pyridostigmine Pretreatment Tablet Set
NATO	North Atlantic Treaty Organization
NAVFAC P	Naval Facilities Engineering Command Publications
NBC	nuclear, biological, and chemical
NSN	national stock number
Pam	pamphlet
para(s)	paragraph(s)
PD	phenyldichloroarsine (blister agent)
PEEP	positive end-expiratory pressure
PPW	patient protective wrap
PS	chloropicrin (irritant agent)
RP	red phosphorus
RTD	return to duty
SGF2	fog oil (smoke producing product)
SOP	standing operating procedure
STANAG	standardization agreement
TB MED	tecluical bulletin, medical
TH	thermite (incendiary)
™	trademark
TM	technical manual
2 PAM C1	pralidoxime chloride
U.S.	United States
V-agent	a nerve agent (In some countries V-agents are known as A-agents)
VX	O-ethyl methyl phosphonothiolate (a V-agent)
WBGT	wet bulb globe temperature
WP	white phosphorus

Section II. DEFINITIONS AND TERMS*

ABC-MS Chemical Agent Detector Paper	A chemical agent detector paper used to detect and identify liquid V- and G-type nerve agents and H-type blister agents. It does not detect chemical agent vapors.
acetylcholine	A chemical compound formed from an acid and an alcohol which causes muscles to contract (neurotransmitter). It is found in various organs and tissues of the body. It is rapidly broken down by an enzyme, cholinesterase. Excessive production of acetylcholine at the motor end-plates (such as found in nerve agent poisoning) may result in neuromuscular block.
acetylcholinesterase	An enzyme (a protein produced in the cells) which stops (inactivates) the action of acetylcholine by separating the acetylcholine into its components of acetic and choline. This occurs as soon as acetylcholine has produced a muscle contraction. Nerve agents combine with acetylcholinesterase to prevent it from performing its inactivation of acetylcholine.
aerosols	A suspension or dispersion of small particles (solids or liquids) in a gaseous medium.
alveoli	Microscopic air sac in the lungs where oxygen and carbon dioxide diffusion takes place through the alveolar walls.
amphetamine	A central nervous system stimulant. May be used as an incapacitating agent. Most common form is a tablet.
analeptic	A drug which stimulates the central nervous system. It is primarily used in the treatment of poisoning by drugs which depress the central nervous system. Examples are amphetamine and caffeine.
anorexia	Loss of appetite.
anoxemia	Inadequate oxygenation of the blood.
anoxia	Lack of oxygen.
antibiotic	A natural or synthetic substance that inhibits the growth of or destroys microorganisms. Used extensively in the treatment of infectious diseases.
anticholinergic (also cholinolytic)	An agent or chemical that blocks or impedes the action of acetylcholine, such as the antidote atropine.
anticholinesterase	A substance which blocks the action of cholinesterase (acetylcholinesterase) such as nerve agents.
anticonvulsant	Class of medications that prevent or relieve convulsions. Example: diazepam.
antidote	A substance which neutralizes toxic agents or their effects (for example, atropine, 2 PAM Cl).
antihistamine	A drug that counteracts the action of histamine. It is often used in the treatment of allergies.
aphonia	Inability to phonate or produce speech sounds.

*See also JCS Pub 1-02 for definitions.

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aplasia	Failure to produce cellular products from an organ or tissue, such as blood cells from the bone marrow, after a toxic dose of mustard.
apnea	Cessation of breathing.
apneic	Without breathing or respirations.
arsenic	A toxic heavy metal found in the vesicant lewisite.
arsenical	Pertaining to or containing arsenic; a reference to the vesicant lewisite.
arsenoxide	Oxophenarsine hydrochloride. An arsenical used as a vesicant such as lewisite.
asphyxiation	Suffocation.
asthma	Difficult breathing associated with bronchial obstruction precipitated by respiratory inhalants, toxins, or allergies. Inhaled chemical agents may cause bronchial spasms or mucous membrane swelling, producing asthma.
ataxia (ataxic)	Incoordination, staggering, muscular discoordination.
atelectasis	Collapse of the alveoli of the lungs secondary to mucous plugs, foreign bodies, and secretion. Frequently associated with pneumonia, best treated by vigorous coughing and breathing exercises, as well as positive pressure breathing with PEEP.
atropine	An anticholinergic used as an antidote for nerve agents to counteract excessive amounts of acetylcholine. It also has other extensive medicinal uses.
atropine sulfate ophthalmic (1 percent) ointment	An ointment applied to the eye to dilate the pupil, used in the relief of pain and to counteract miosis.
atropinization	The effect of treating with sufficient atropine to increase heart rate, stop sweating, dilate the pupils, and produce mild redness to the skin under the influence of atropine. In the case of nerve agent poisoning, it is referred to as sufficient atropine to produce a heart rate above 90.
barbiturate	A group of medications (organic compounds) which produce sedative and hypnotic effects, causing depression of the central nervous system and respiration.
beclomethasone	A glucocorticoid administered by aerosol inhalation and felt to relieve bronchospasm and prevent or ameliorate pulmonary edema following inhalation of chemical warfare agents such as CG.
belladonna alkaloid	An anticholinergic alkaloid (such as atropine, alkaloid hyoscyamine, belladonnine, scopolamine) derived from the belladonna plant and important in specific antidotal properties in counteracting acetylcholine excess in nerve agent poisoning.
betamethasone	A synthetic glucocorticoid, like beclomethasone, when administered by aerosol inhaler is felt to assist in relieving bronchospasm and ameliorate pulmonary edema following inhalation of chemical agents such as CG.
blepharospasm	A twitching or spasmodic contraction of the orbicular oculi muscle around the eye.
blister agent (vesicant)	A chemical warfare agent which produces local irritation and damage to the skin and mucous membranes, pain and injury to the eyes, reddening and blistering of the

skin, and when inhaled, damage to the respiratory tract. Blister agents include mustards (HD and HN), arsenical (L), phosgene oxime (CX), and mustard and lewisite mixtures (HL).

blood agent (cyanogen)	A chemical warfare agent which is inhaled and absorbed into the blood. The blood carries the agent to all body tissues where it interferes with tissue oxygenation process. The brain is especially affected. The effect on the brain leads to cessation of respiration followed by cardiovascular collapse. Examples of blood agents are AC and CK.
Bowman's membrane	Thin homogeneous membrane separating corneal epitheliums from corneal substance.
bradycardia	Heart rate less than 50.
British anti-lewisite (BAL)	Commercial name for a chemical compound (dimercaprol) which is used as an antidote for heavy metal poisoning—specifically, arsenic (a component of L).
bromobenzylcyanide (CA)	The first tear agent used. It is now obsolete. It produced severe burning to the mucous membranes and irritation and tearing to the eyes. It was used as a riot control agent.
bronchiectasis	Saccular dilatation of the terminal bronchi, resulting in chronic low-grade pulmonary infection with acute exacerbations. May be acquired as a result of past pulmonary disease or injury, or may be congenital.
bronchitis	Inflammation of the mucous membrane of the bronchial tubes, producing chronic cough.
bronchoconstriction	Constriction of the bronchial tubes which tends to trap air in the lungs.
bronchopneumonia	Inflammation of the terminal bronchioles and alveoli, causing edema and consolidation of alveoli.
Burow's solution	A solution of aluminum acetate used to treat certain forms of dermatitis.
calcium hypochlorite	Calcium combined with the salt of hypochlorous acid. Used in diluted strength for decontamination of patients and equipment.
cannabinols	An alkaloid derived from the hemp plant. (See cannabis.)
cannabis	The upper portion of the hemp plant, used as a hallucinogenic. It is known as hashish and marijuana. (See cannabinols.)
carbamate	Any ester of carbamic acid. Can be used to protect acetylcholinesterase from nerve agents.
carbon monoxide	A colorless, tasteless, odorless poison gas which gives no warning of its presence. It is found in the fuel exhaust from all internal combustion engines and fossil fuels. It results from inefficient and incomplete combustion of these fuels. It is found in enclosed spaces with poor ventilation such as closed garages, inside crew compartments of vehicles, cellars, mines, and tunnels. (The field protective mask does not protect against carbon monoxide.)
carbon tetrachloride (pyrene)	Used as a solvent in industry. Its vapors are toxic and must be used cautiously. It causes liver and kidney degeneration.

carcinogen	Any cancer-causing substance.
cardiopulmonary resuscitation	The act of restoring heartbeat through chest compression and mouth-to-mouth breathing after apparent death.
catheter	A tube passed into the body for evacuating or injecting fluids into blood vessels, organs, or other parts of the body.
cerebral edema	Swelling of brain cells which, because of limited space inside the skull, may create brain compression.
chemical contamination	The deposition of chemical agents on personnel, clothing, equipment, structures, or areas. Chemical contamination mainly consists of liquid, solid particles, and vapor hazards. Vapor hazards are probably the most prevalent means of contaminating the environment, although they are not necessarily a contact hazard.
chemical decontamination	The process of sufficiently reducing the hazard caused by chemical agents in order to allow the mission to be continued. Decontamination can be done by individual service members, unit decontamination teams, or chemical units. Generally, methods used for skin decontamination include removal and/or chemical neutralization of agent(s); removal of clothing for medical examination; for equipment, the methods used are removal, destruction, covering, weathering, and chemical neutralization.
chemical pneumonitis	Inflammation of the lungs from any one of several sources, such as inhaling chemical vapors or smoke, with injury to the bronchial system as well as the alveoli.
chemical warfare agent (chemical agent)	A chemical substance which, because of its physiological, psychological, or pharmacological effects, is intended for use in military operations to kill, seriously injure, or incapacitate humans (or animals) through its toxicological effects. Excluded are riot control agents, chemical herbicides, and smoke and flame materials. Chemical agents are nerve agents, incapacitating agents, blister agents (vesicants), lung-damaging agents, blood agents, and vomiting agents.
chemosis	Edema of the conjunctival about the cornea.
Cheyne-Stokes respiration	A common and bizarre breathing pattern characterized by a period of apnea lasting 10 to 60 seconds, followed by gradually increasing respirations, and then a return to apnea. This condition can be caused by exposure to a nerve agent.
chloral hydrate	A sedative or hypnotic medication used to induce sleep. It is not felt to be a depressant. Usually administered orally.
chlorine	A gas that is used to treat drinking water. It is a highly irritating gas that is destructive to the mucous membranes of the respiratory passages; excessive inhalation may cause death. Chlorine was the first CW agent used in World War I.
chloroacetophenone	A riot control agent.
chloroform	Originally used in vapor form as an anesthetic agent, no longer used for that purpose. It is a clear, colorless liquid used in laboratory procedures.
chloropicrin (PS)	A riot control agent. It is an irritant which produces severe sensory irritation in the upper respiratory passages. Also used in industry as a disinfectant and fumigant. It is a potent skin irritant as well. May produce nausea and vomiting.
chlorosulfonic	An irritant war gas and lacrimator used widely as an intermediate in chemical synthesis.

chlorpromazine	A medication used as a minor tranquilizer and antiemetic agent. Proprietary name is Thorazine™. May be used orally, IM, or IV.
choking agent	See lung-damaging agent.
cholinergic	Referring to acetylcholine or nerve endings which liberate acetylcholine. Acetylcholine transmits the nerve impulse across the neuromuscular junction.
cholinesterase	The abbreviated term for acetylcholinesterase, which is an enzyme that hydrolyses acetylcholine to acetic acid and choline upon the chemical transmission of a nerve impulse across the neuromuscular junction.
ciliary spasm	Spasm of the muscles of the eyelids which is usually painful and may interfere with functioning of the eyelid.
codeine	An analgesic obtained from opium, acceptable for the relief of moderate pain and used to suppress coughing.
collagen	Protein substance of connective tissue.
conjunctival	The delicate membrane that lines the eyelids and covers the exposed surface of the sclera.
conjunctival	Pertaining to the conjunctiva.
conjunctivitis	Inflammation of the conjunctiva.
conventional military chemicals	These are chemical substances used within the military for day-to-day operations as well as in combat. Included in this group are chemical herbicides, insecticides, and smoke and incendiary materials.
conventional weapons	Weapons that do not employ the use of chemical, biological, or nuclear munitions.
corium	The layer of the skin under the epidermis. It contains the hair follicles, sweat glands, and sebaceous glands.
cornea/corneal	The clear, transparent anterior portion of the eye, comprising about one-sixth of its surface through which light passes to transmit images to the retina. It is continuous at its periphery with the sclera and composed of five layers.
corticosteroid (steroid)	A group of hormones derived from the adrenal gland, primarily anti-inflammatory in nature but also associated with sexual hormones and electrolyte balance with profound effects upon the body.
cricothyroid membrane	A small circular area of the thyroid cartilage which can be readily entered with a needle to establish an airway.
cricothyroid needle	A hollow needle specifically designed to pierce the cricothyroid membrane and to permit the flow of air.
cuboidal epitheliums	Cuboidal refers to cells that are shaped like a cube. Cells lining the surfaces of organs and the body are known as epitheliums.
cutaneous	Pertaining to the skin.
cyanide	The broad term used for any cyanide, which includes hydrogen cyanide and cyanogen chloride.

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cyanogen chloride (CK)	A blood CW agents. Acts similar to cyanide in depriving cells of oxygen.
cyanogens	Current NATO generic term for blood agents that includes hydrogen cyanide and CK. See blood agent.
cyanosis	Slightly bluish, grayish, slate-like, or dark purple discoloration of the skin due to reduction of oxygen in the blood.
cyclitis	Inflammation of the ciliary body of the eye.
d-amphetamine (dextroamphetamine sulfate)	A medication that is a CNS stimulant. Frequently used in drug abuse, a common isomer of amphetamine sulfate.
DECON-1 packet	A component of the M258A1 Skin Decontamination Kit (3 packets in total). Each packet contains a wipe prewetted with hydroxyethane 72 percent, phenol 10 percent, sodium hydroxide 5 percent, and ammonia 0.2 percent, and the remainder water.
DECON-2 packet	Another component of the M258A1 Skin Decontamination Kit (3 packets in total). Each packet contains a wipe impregnated with chloramine B and sealed glass ampules filled with hydroxyethane 45 percent, zinc chloride 5 percent, and the remainder water.
dermatitis	An inflammation or infection of the skin.
dexamethasone-21- isonicotinate	A glucocorticoid used in several forms, specifically in the treatment of mild mustard conjunctivitis in topical ointment form.
diathesis	Conditions that predisposes the body toward or causes it to have a tendency to develop certain diseases.
dibenzoxazepine (CR)	Similar to CS but minimum effective concentration is lower and LCt 50 is higher. Symptoms and treatment are similar to CS.
dichloroarsine	An arsenical vesicant such as phenyldichloroarsine and chlorovinylchloroarsine (L).
dirnercaprol	See British anti-lewisite.
dimethyl sulfate (H-agent simulant)	A chemical used as a simulant for mustard (H). Also has been used as an industrial poison and war gas, causing nystagmus, convulsions, and death from pulmonary complications.
diphenylaminearsine chloride (Adamsite, DM)	A vomiting agent.
diphenylchloroarsine (DA)	A vomiting agent.
diphenylcyanoarsine (DC)	A vomiting agent.
d-lysergic acid diethylamide (LSD)	A hallucinogenic drug subject to abuse. Creates bizarre behavior, psychosis. No legitimate use now, but has been used experimentally in the study of mental disorders.
dorsum	The back or posterior surface of the body.
dysarthria	Garbled speech as a result of muscular impairment.

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dyspnea	Labored breathing resulting from an increased need for oxygen or inadequate air exchange in the lungs.
eczematoid dermatitis	Superficial skin condition with inflammatory component and crusting.
edema	Excess fluid buildup in the tissues causing swelling.
emphysema	Process of trapping air in the alveoli, associated with loss of elasticity of the lung tissues and resulting in being unable to completely exhale.
endemic	A low level but continuous incidence of a disease in a given population.
endotracheal	Placing a device through the lumen of the trachea, such as an endotracheal tube.
endotracheal tube	A tube placed through the lumen of the trachea to maintain a patent airway and prevent aspiration by inflating a cuff that surrounds the tube after the tube is in place.
epidemiological	The study of diseases.
epigastric	Upper middle abdomen, especially that portion located in the sternal area.
epilepsy	Usually a convulsive disorder precipitated by a massive brain electrical discharge, altered consciousness, with bursts of motor activity. There may be a significant difference between types of epilepsy.
epinephrine	A fight or flight hormone from the adrenal medulla produced by stress or pain. Increases heart rate, dilates pupils, and increases respiratory rate. Also known as adrenaline. Used as a medication to relieve bronchial constriction.
epinephrine hydrochloride	A drug used to relieve bronchospasms or constrictions, such as when exposed to HC mixture. It is administered by IM injection.
epistaxis	Nosebleed.
eructation	Belching.
erythema	Red area of the skin, caused by heat or cold injury, trauma, or inflammation. May be localized or generalized.
ethylchloroarsine	A chemical warfare agent related to L used as a vesicant. May be a respiratory tract irritant and cause pulmonary edema.
fasciculation	Localized contraction of muscle fibers, usually visible through the skin.
fibrosis	Scar tissue, replacement by fibrous tissue.
flaccid paralysis	Loss of muscle tone and capability to function. Nerve agents cause this condition.
fluocinolone acetoneide	One of the components of a topical steroid used in treatment of skin erythema and edema after exposure to certain riot control chemical agents.
fluorescein dye	Used to make foreign bodies in the eye fluoresce.
flurandrenolone	One of the components of a topical steroid used in the treatment of skin erythema and edema after exposure to certain riot control chemical agents.

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fog oil	A smoke made from a special petroleum oil.
G-agent	A nerve agent such as GA, GB, GD and GF.
gangrene	A death of a body part, usually due to deficient or absent blood supply.
glottic edema	Swelling of the larynx due to exposure to chemical agents. It may result in a voice change or loss of voice.
grand mal	The most pronounced form of epilepsy, usually preceded by an aura, then a loss of consciousness and tonic clonic movements.
granulocytopenia	Absence of white cells of the granulocyte series in blood stream.
H-agent simulant	A chemical, isoamyl salicylate, used as a simulant for mustard vesicant. It is one of a family of vesicant simulants.
hallucinogen	A drug which produces visual, auditory, and olfactory imaginary sensations. Such drugs are cannabinoids, LSD, peyote, and alcohol.
HC mixture	A special smoke made from petroleum oil. It is a mixture of grained aluminum, zinc oxide, and hexachloroethane.
hematopoietic	Pertaining to the production and development of blood cells.
hemoconcentration	A relative increase in the number of red blood cells, resulting from a decrease in the volume of plasma.
hemolysis	Separation of the hemoglobin contents of the red blood cell from the red blood cell membrane as a result of injury or aging of the red blood cell.
hemolytic anemia	Anemia caused by increased destruction of red blood cells where the bone marrow is not able to compensate for it.
histamine	A substance found in most body tissues (particularly in most cells) which causes vasodilatation, increased gastric secretion, increase in heart rate, and hypersensitivity reactions.
hydrocarbon	Any compound made up of hydrogen and carbon, either as a long chain (aliphatic) or in ring form (aromatic or cyclic).
hydrochloric acid	A strong acid in the form of an aqueous solution of hydrogen chloride. Also known as muriatic acid.
hydrogen cyanide (AC) (hydrocyanic acid)	A CW agent, extremely poisonous, which blocks the uptake of oxygen by tissue cells (suppresses cellular respiration). Produces rapid onset of symptoms from toxic effects including tachypnea, dyspnea, paralysis, and respiratory arrest.
hydrogen sulfide	A noxious chemical with a strong odor of rotten eggs.
hydrolytic	Process of changing the characteristics of a chemical by subjecting it to water with the production of a hydroxyl group and a hydrogen atom.
hyperemia	Increased redness of the skin which usually disappears with pressure or increased blood flow to a body part.
hypertension	High blood pressure, usually greater than 140 systolic and 90 diastolic.

hypertonic	Greater than normal physiologic concentration. A solution having a greater tonicity than a normal solution of particular body fluids.
hyperventilation	Excessive breathing (too rapid and/or too deep) with a resultant decrease in carbon dioxide tension and respiratory alkalosis.
hypopyon	Pus in the anterior chamber of the eye.
hypotension	Less than “normal” blood pressure within the vascular system. An insufficient blood pressure to adequately perfuse the body. If blood pressure is markedly low, then it is termed shock.
hypovolemic shock	Insufficient blood volume to maintain adequate tissue oxygenation and aerobic metabolism.
hypoxemia (hypoxia)	Insufficient oxygen in the circulatory system to adequately supply tissue cells. May be caused by lack of oxygen, inadequate hemoglobin to carry oxygen, or interference with transfer of oxygen to the cells.
incapacitating agent	A CW agent which produces a temporary disabling condition that persists for hours to days after exposure has ceased. Generally, CNS depressants and CNS stimulants are the two types that are likely to be encountered in military operations. Examples are cannabinoids and phenothiazine compounds.
incendiary agent	A warfare agent used to burn supplies, equipment, and structures. The main groups are thermite, magnesium, WP, and combustible hydrocarbons (including oils and thickened gasoline).
individual protective equipment (IPE)	Individual protective equipment includes the chemical protective overgarment, mask with hood, rubber butyl gloves, and booties.
integrated battlefield	Warfare and/or contingency operations where nuclear, biological, and/or chemical weapons are being employed or have a high probability of being employed in addition to conventional weapons.
intermittent positive pressure breathing (IPPB)	A method of ventilating a patient with pressure greater than atmospheric during the inspiratory phase of breathing.
iritis	Inflammation of the iris with accompanying pain, photophobia, lacrimation, and diminution of vision. Treated with atropine to dilate the pupils, systemic steroids are frequently used.
irritant agent	A tear agent or lacrimator which, in very low concentrations, acts primarily on the eyes, causing intense pain and lacrimation. Higher concentrations cause irritation in the upper respiratory tract and the skin, and sometimes nausea and vomiting. Examples of irritant agents are CN, CNC, CA, and CS.
ischemic necrosis	Death of body tissue (or cells) due to lack of blood supply.
lacrimation	Secretion and discharge of tears.
lacrimator	A substance which induces the secretion of tears.
laryngitis	Swelling, redness, and inflammation of the larynx.
laryngoscope	A lighted instrument for visualization of the larynx.

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larynx	The voice box located in the thyroid cartilage.
latent period	Specifically in the case of mustard, the period between exposure and onset of signs and symptoms; otherwise, an incubation period.
leukemia	Cancer of the white blood cells.
leukocytosis	Increase above normal of white blood cells.
leukopenia	Less than the normal number of white blood cells.
lewisite (chlorovinyl-di-chloroarsine)	A fast-acting vesicant, lacrimator, and lung irritant.
lipoid pneumonia	A pneumonia caused by the inhalation or ingestion of petroleum oils or fats.
liquefaction necrosis	Death of tissue, with softening to the point that tissue becomes at least partially liquefied.
lung-damaging agent	A chemical warfare agent, also known as a “choking agent” which produces irritation to the eyes and upper respiratory tract and damage to the lungs, primarily causing pulmonary edema. Examples of lung-damaging agents are CG, DP, chlorine, PS, and CK.
lymphocytopenia	An absolute decrease in the presence of lymphocytes in the blood, usually less than 1500 per mm ³ .
M256 Chemical Agent Detector Kit	A kit that detects and identifies vapor concentrations of nerve, blister, and blood agents.
M258A1 Skin Decontamination Kit	A kit used for performing emergency decontamination of the skin and selected small equipment, such as the protective gloves, mask, hood, and individual’s weapons. Each kit contains three DECON-1 WIPES and three DECON-2 WIPES. This kit is being replaced by the M291 Skin Decontaminating Kit. When replaced the M258A1 will ONLY be used for decontamination of individual equipment.
M291 Skin Decontaminating Kit	A kit to perform emergency decontamination of the skin and mask. The kit contains six decontamination packets.
M295 Decontamination Packet, Individual Equipment (DPIE)	A kit (similar to the M291 Skin Decontaminating Kit) used to decontaminate equipment, such as the weapon, helmet, and other gear, that is carried by the service member. Although similar to the M291, this kit is not FDA-approved for use on the skin.
M9E1 Chemical Agent Detector Paper	A paper that detects the presence of liquid nerve agents (V and G) and blister agents (H, HN, and L). This paper does not distinguish between the types of agent involved, only that an agent or agents may be present. Neither will it detect chemical agent vapor.
maceration	Destruction of soft tissue, usually associated with prolonged immersion in water or wetness and may, in some cases, have been associated with trauma.
magnesium	An element which, in metal form, burns readily at high temperatures, splatters readily upon burning, and may cause severe burns.

malathion	An organophosphate insecticide currently in wide usage.
MARK I	See Nerve Agent Antidote Kit, MARK I.
methemoglobin	A reduced form of hemoglobin, no longer capable of oxygen transport. May be caused by medications. The iron in the hemoglobin is oxidized from ferrous to ferric. Cyanide is attracted to methemoglobin. Sodium nitrite is administered to form the methemoglobin in the blood to sequester the cyanide.
methylchloroarsine	One of a group of vesicant chemical warfare agents.
methylene blue solution	An organic compound which prevents the formation of methemoglobin. However, oxygen should be used in most instances rather than methylene blue. Has been used as an antidote for cyanide poisoning (not recommended).
methylprednisolone	A steroid medication derived from prednisolone, anti-inflammatory in nature, and used to prevent or lessen the severity of pulmonary edema.
micturition	The act of emptying the bladder of urine.
miosis	Pinpoint or small pupils.
mission-oriented protective posture	A flexible system for protection against NBC contamination. This posture requires personnel to wear only that individual protective clothing and equipment consistent with the threat, work rate imposed by the mission, temperature, and humidity. There are five levels of MOPP (zero through 4). MOPP 4 offers the greatest protection but also degrades mission performance the most.
morbilliform	Description of a specific rash that is red, blotchy, and generalized in character.
morphine	A potent narcotic used in the control of pain, derived from opium. Readily abused. Continues to be the analgesic of choice for initial pain control in the combat-wounded service member.
muscarinic	A specific type of poisoning affecting the postganglionic parasympathetic neural-muscular junction, resulting from excess acetylcholine due to inhibition of acetylcholinesterase. The result is a decrease in heart rate, bronchoconstriction, and salivary and lacrimal gland stimulation.
mustard (HD)	A vesicant chemical warfare agent which has been used extensively in warfare. Creates destruction of epidermis, eye and pulmonary injury, and, in high doses, bone marrow depression.
myasthenia gravis	A disease characterized by either lack of acetylcholinesterase or excess of acetylcholine in which the patient has disabling muscular weakness and severe fatigability. Treated by such medications as pyridostigmine.
mydriasis	Large or dilated pupils.
mydriatics	Substances that produce mydriasis such as atropine or homatropine.
narcosis	To be under the influence of narcotics.
necrosis	Death of tissue.
necrotic	Pertaining to necrosis, end result of necrosis.

neostigmine	An anticholinesterase agent used in medical conditions to enhance acetylcholine action.
nerve agent	The most toxic of CW agents. It is an organic ester of phosphoric acid which has physiological effects (inhibition of cholinesterase). Nerve agents are absorbed into the body by breathing, by injection, or through the skin, and affect the nervous and the respiratory systems and various body functions. They include the G- and V-agents. Examples of G-agents are Tabun (GA), Sarin (GB), Soman (GD), and V-agent (VX).
Nerve Agent Antidote Kit (NAAK)	The nerve agent antidote used by the U.S. Armed Forces in the treatment of nerve agent poisoning. The kit consists of four separate components: the atropine autoinjector, the pralidoxime chloride autoinjector, the plastic clip, and the foam carrying case. Also called the MARK I.
Nerve Agent Pyridostigmine Pretreatment (NAPP) Tablet Set	A blister pack containing a pretreatment medication to be used with NAAK. The pack consists of twenty-one 30-mg pyridostigmine bromide tablets. When used in conjunction with the MARK I, this medication may enhance the service member's survivability when exposed to nerve agents.
nicotinic	Referring to the toxic effect of nicotine on autonomic ganglia, initially stimulating, then inhibiting neural impulses at the ganglia level as well as the neuromuscular junction.
nitric acid	A caustic and corrosive acid widely used in industry and chemical laboratories.
nitric oxide	An unstable chemical compound formed by passing air through an electric arc. Converts to nitrogen dioxide when exposed to air. Like other nitrogen compounds (nitrogen dioxide), it is extremely hazardous to breathe. Self-contained masks plus adequate ventilation are mandatory when exposed to even small amounts.
nitrogen dioxide	An irritating gas, one of several oxides of nitrogen, usually formed from nitrogen tetroxide or by the reaction of certain metals with nitric acid.
nitrogen mustard	A vesicant which attacks deoxyribonucleic acid (DNA). Is also used as an antineoplastic agent (classed as an alkylating agent). Several were developed as CW agents. Also produces pulmonary injury and bone marrow depression.
nitrogen tetroxide	An unstable compound that readily decomposes to nitrogen dioxide.
N-methylglucarnine	A chemical compound used as a V-agent simulant, with significant irritant properties.
nonpersistent agent	A chemical agent that disperses or vaporizes rapidly after release and presents an immediate short duration hazard. These agents are generally released as aerosols, gases, vapors, liquids, or solids.
norepinephrine	An epinephrine-like hormone secreted by the adrenal medulla, with primary effect as vasoconstrictor as compared to epinephrine (which primarily increases heart rate and cardiac output).
noxious chemicals	Included in this category are gases such as carbon monoxide (CO), oxides of nitrogen, chlorine vapor, hydrogen sulfide, and ammonia.
O-chlorobenzylidene malonitrile	A tear gas used primarily as a riot control agent. Potent eye, throat, and skin irritant, but incapacitation is short-lived.
octamethyl pyrophosphoramide (OMPA)	An organophosphate insecticide. Like organophosphates in general, it inhibits acetylcholinesterase.

opacification	The condition of blocking the transmission of light as opacification of the cornea or lens of the eye.
ophthalmic	Pertaining to the eye.
ophthalmologist	A physician who specializes in the diagnosis and medical and surgical treatment of diseases and defects of the eye and related structures.
opiate	A derivative of opium or containing opium.
organophosphate	A compound with a specific phosphate group which inhibits acetylcholinesterase. Used in CW and as an insecticide.
oropharyngeal airway	A short airway inserted into the oropharynx to prevent the tongue from obstructing the airway.
oropharynx	That portion of the pharynx associated with and posterior to the mouth, namely from the soft palate to the epiglottis.
overatropinization	Too much atropine; may cause psychosis.
oxime	A compound that can remove the cholinesterase inhibition from the cholinesterase providing that aging has not occurred. Oxime is used in the therapy of nerve agent poisoning.
pannus	A covering over the cornea of the eye, usually from superficial vascular tissue, producing a cloudy vascular film. Seen in some diseases or as a result of irritation.
paralyzing agent	Any agent that prevents the use of certain muscles or groups of muscles.
parasympathomimetic	The effects obtained from stimulation of the parasympathetic portion of the autonomies nervous system, causing cholinergic effects.
parenchyma	The functioning part of an organ as contrasted to its structural parts. Parenchyma of the stomach are the secreting glands which produce acid, mucous, and so forth, as contrasted to the stomach wall which provides structure.
pathognomonic	A sign or symptom specifically distinctive of a disease.
percutaneous	Through the skin, such as applying an ointment with medication or injection by needle.
peristalsis	A wave-like contraction in an organ, such as the intestines, which propels the contents.
pernicious anemia	One form of anemia associated with a lack of vitamin B ₁₂ , and other factors. Usually responds to B ₁₂ and iron diet.
persistent agent	A chemical agent that continues to present a hazard for considerable periods after delivery by remaining as a contact hazard and/or by vaporizing very slowly to produce a hazard by inhalation. Generally, may be in a solid or liquid state.
phagocytosis	The engulfing of microorganisms and foreign particles by cells called phagocytes.
pharyngitis	Inflammation of the pharynx.
pharynx	The air passageway from the posterior nose to the trachea.

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phenol	An ingredient used in calamine lotion (1 percent).
phenothiazine	A group of psychotherapeutic medications with a phenothiazine structure which act by adrenergic blocking. They have antiemetic, antihistaminic, and antispasmodic activity in addition to CNS effects.
phenyldichloroarsine	A vesicant of the L group.
phosgene	Carbonyl chloride, a chemical warfare agent used in World War I (was leading cause of death). Causes severe pulmonary irritation and injury.
phosgene oxime	Dichloroformoxime. A vesicant, as well as a lung irritant, used as a chemical warfare agent.
phosphoric acid	A tribasic acid.
photophobia	Literally, fear of light. Occurs when light becomes painful to the eyes.
physical characteristics of chemical agents	Chemical agents cover the whole spectrum of physical properties. Their physical state may be aerosol, gaseous, liquid, or solid under normal conditions. Their vapor pressure (the force exerted by the vapor when in equilibrium with the liquid or solid at a given temperature) may be high or negligible. Their vapor density varies from slightly lighter than air to considerably heavier than air. Their range of odors varies from none to highly pungent. They may be soluble or insoluble in water, fats, or organic solvents. The physical characteristics may give an indication of the behavior of the agents in the field with regard to vapor hazard, persistency, decontamination methods required, and personal and subsistence protection required.
physostigmine	A reversible anticholinesterase permitting an accumulation of acetylcholine (cholinergic). It readily crosses the blood-brain barrier. It improves the tone and action of skeletal muscles, increases intestinal peristalsis, acts as a miotic in the eye, and is used in treatment of BZ.
physostigmine salicylate	See physostigmine.
pneumonia	Inflammation of the lungs, usually caused by an infective agent. May be secondary to injury to the lungs.
Positive end-expiratory pressure (PEEP)	A method of ventilating a patient where positive pressure is maintained in the lungs at the end of the expiratory cycle, thus maintaining a higher pressure than the pulmonary circulation which reduces the pooling or shunting of blood in the lungs.
pralidoxime	An oxime used in the treatment of organophosphate insecticides and nerve agent poisoning to block the inhibition of acetylcholinesterase by nerve agents.
prednisolone	A steroid (glucocorticoid) used in the treatment of choking agents over a course of several days.
preganglionic	The nerve fiber leading to a ganglion.
pruritus	Itching.
pulmonary edema	Swelling of the cells of the lungs, associated with an outpouring of fluid from the capillaries into the pulmonary spaces, producing severe shortness of breath. In later stages, produces expectoration of frothy pink serous fluid and cyanosis.

reserpine	A medication used in the treatment of high blood pressure.
rhinitis	Inflammation of the nasal mucosa.
rhinorrhea	Thin watery discharge from the nose.
riot control agent	A chemical which produces transient effects that disappear within minutes of removal from exposure and very rarely require medical treatment. Riot control agents are effective in quelling civil disturbances and in some military operations, to preclude unnecessary loss of life.
saprophytic	Pertaining to deriving its growth from other living or dead matter.
Sarin	A nerve agent of the organophosphate group which inhibits acetylcholinesterase.
smokes	An obscurant system in which one or more solids are dispersed in a vapor or gas. Smokes are made from special petroleum oils such as SGF2, HC, FM, FS, and WP.
sodium bicarbonate	Commonly called baking soda. Has many uses, including use in irrigating solutions, especially for the eyes.
sodium carbonate	An antacid. Also used as a solution for decontaminating the skin to remove irritants. Can be used as a detergent.
sodium hypochlorite	Bleach, a source of chlorine, with decontamination and disinfectant properties.
sodium nitrite	A hypotensive agent and methemoglobin former, used as an antidote for cyanide poisoning to sequester the cyanide agent.
sodium sulfacetamide	A medication used either as an ointment or solution in the eye. It is a mild anti-bacterial agent.
sodium sulfite	A compound used (when in solution) as a decontaminant for skin irritants.
sodium thiocyanate	The metabolize formed by the action of sodium thiosulfate on cyanide as an antidote, which is then excreted from the body.
sodium thiosulfate	An antidote for cyanide or as a source of sulfhydryl groups for other actions in the body. If used for cyanide poisoning, it should be preceded with sodium nitrite.
Soman	A nerve agent member of the organophosphate group; inhibits acetylcholinesterase. Used as a chemical warfare agent.
sternutator	An agent which induces coughing and sneezing.
steroid	See corticosteroid.
substernal	Under the sternum.
sulfur trioxide-chlorosulfonic acid solution	An obscurant usually dispensed from aircraft, forms hydrochloric and sulfuric acid on contact with moisture. Is irritating to the eyes, respiratory tract, and skin.
sulfuric acid	An acid from sulfur, oxygen, and hydrogen used in industry. It is caustic and corrosive.
synechia	Adhesion of parts, especially adhesion of the iris to the lens and cornea.

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systemic poison	A poison that affects the whole body.
Tabun	A nerve agent member of the organophosphate group which inhibits acetylcholinesterase. Is used as a chemical warfare agent. Is the least toxic of the nerve agents but can cause death rapidly.
thermite	Incendiaries that are a mixture of powdered iron oxide, powdered aluminum, and other materials.
thrombocytopenia	An absolute decrease in the circulating platelets in the blood.
titanium dioxide	A breakdown product of FM which can be irritating to the eyes and skin.
titanium oxychloride	One of the three components of FM.
titanium tetrachloride	A petroleum base oil that is converted into smoke for battlefield obscuration. May be irritating to eyes and respiratory tract.
tracheobronchial	Pertaining to the portion of the airway starting at the neck and passing into the lungs.
tracheotomy	An opening made into the trachea to permit air to flow directly into the trachea, and bypassing the nose and mouth.
tranquilizer	A medication used in the treatment of various psychoneurotic, neurotic, and psychotic disorders. Major tranquilizers are used for psychoses and include phenothiazines, thioxanthenes, and butyrophenones. Minor tranquilizers are used for treatment of neuroses and anxiety states and include certain barbiturates, the benzodiazepines, and other drugs.
triamcinolone	A steroid used for many purposes, including as an anti-irritant following exposure of the skin to CN and CA agents.
ulceration	Breaking down of a surface (such as the skin or mucous membrane) to form an ulcer.
urticant	A skin irritant which causes itching or a raised red area (wheal).
US Army Field Medical Card (DD Form 1380)	A card used to record the medical diagnosis, medication, and treatment given for all illnesses or injuries (including chemical agent injuries) and, if known, the contaminating agent. It is also used to record the disposition of casualties who are dead on arrival at the battalion aid or division clearing station or who died of wounds, injury, or illness.
vacuolation	Formation of a space.
V-agent (VX)	A nerve agent of the organophosphate group that inhibits acetylcholinesterase.
vascularization	Development of new blood vessels in a structure.
vasoconstriction	Diminution of the interior size of a blood vessel with resultant decrease in blood flow.
vertigo	Dizziness, where space seems to move around.
vesicant	A chemical blister agent which injures the eyes and the lungs and burns or blisters the skin. Examples are HD, L, and CX.
vesication	Blistering.

vesiculation	The process of blistering.
vomiting agent	DA, DM, and DC.
wheezing	A whistling sound made in breathing, usually cause by partial obstruction of the airways.
white phosphorus (WP)	A form of phosphorus which creates spectacular bursts when used in artillery shells. Is very damaging to the skin since it continues to burn upon exposure to oxygen.