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Chapter 2 : Iraq and weapons of mass destruction - Wikipedia

This course is essential for emergency responders, CISM teams, mental health professionals, emergency managers, planners, chief executives, department heads of public and private organizations, and others who will be involved with providing humanitarian services after an attack of domestic terrorism or a weapons of mass destruction incident occurs.

Subsequently, the Security Council issued resolution authorizing new inspections in Iraq. The carefully worded UN resolution put the burden on Iraq, not UN inspectors, to prove that they no longer had weapons of mass destruction. According to reports from the previous UN inspection agency, UNSCOM, Iraq produced metric tons of chemical agents, including mustard gas, VX and sarin, and nearly 25,000 rockets and 15,000 artillery shells, with chemical agents, that are still unaccounted for. In January, United Nations weapons inspectors reported that they had found no indication that Iraq possessed nuclear weapons or an active program. Some former UNSCOM inspectors disagree about whether the United States could know for certain whether or not Iraq had renewed production of weapons of mass destruction. Since sites had been found which evidenced the destruction of chemical weaponry, UNSCOM was actively working with Iraq on methods to ascertain for certain whether the amounts destroyed matched up with the amounts that Iraq had produced. But on the other hand, since Iraq has been fundamentally disarmed: He stated that Iraqi Sarin and tabun have a shelf life of approximately five years, VX lasts a bit longer but not much longer, and finally he said botulinum toxin and liquid anthrax last about three years. He said that Security Council resolution authorised force against Iraq, which was suspended but not terminated by resolution, which imposed continuing obligations on Iraq to eliminate its weapons of mass destruction. A material breach of resolution would revive the authority to use force under resolution. In resolution the Security Council determined that Iraq was in material breach of resolution because it had not fully carried out its obligations to disarm. Although resolution had given Iraq a final chance to comply, UK Attorney General Goldsmith wrote "it is plain that Iraq has failed so to comply". Most member governments of the United Nations Security Council made clear that after resolution there still was no authorization for the use of force. Indeed, at the time was passed, both the U. Negroponte was quoted as saying: We heard loud and clear during the negotiations the concerns about "automaticity" and "hidden triggers" - the concern that on a decision so crucial we should not rush into military action; that on a decision so crucial any Iraqi violations should be discussed by the Council. Let me be equally clear in response, as one of the co-sponsors of the text we have adopted: American President George W. Bush stated that Saddam Hussein had 48 hours to step down and leave Iraq. He said, "The truth is that for reasons that have a lot to do with the U. One is weapons of mass destruction, the second is support for terrorism, the third is the criminal treatment of the Iraqi people. We seized the entire records of the Iraqi Nuclear program, especially the administrative records. He had no knowledge of it because he worked as a kickback specialist for Hussein Kamel in the Presidential Palace. He goes into northern Iraq and meets up with Ahmad Chalabi. Senator Pat Roberts announced that the U. Select Committee on Intelligence that he chaired would, as a part of its ongoing oversight of the intelligence community, conduct a Review of intelligence on Iraqi weapons of mass destruction. Congress, that history would forgive the United States and United Kingdom, even if they were wrong about weapons of mass destruction. He still maintained that "with every fiber of instinct and conviction" Iraq did have weapons of mass destruction. He was a state sponsor of terror. Removing Saddam Hussein was the right thing for world peace and the security of our country. In a speech before the World Affairs Council of Charlotte, NC, on April 7, , President Bush stated that he "fully understood that the intelligence was wrong, and [he was] just as disappointed as everybody else" when U. There is little question that Saddam Hussein wants to develop nuclear weapons. Among the contentions he makes in his report are that the government "ordered the September Dossier, a British Government dossier on WMD to be sexed up, to be made more exciting, and ordered more facts to be We know what the fermenters look like. We know what the tanks, pumps, compressors and other parts look like. The team of experts unanimously found "no

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connection to anything biological"; one of the experts told reporters that they privately called the trailers "the biggest sand toilets in the world. It is still classified, but a Washington Post report of April 12, disclosed some of the details of the report. According to the Post: Iraq Survey Group[edit].

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Chapter 3 : History and Types of Weapons of Mass Destruction | Homeland Security Degree Online

Bioterrorism--domestic weapons of mass destruction: Hearing before the Subcommittee on Labor, Health and Human Services, and Education, and Related.

Diffuse muscle cramping, runny nose, difficulty breathing, eye pain, dim vision, sweating, muscle tremors. Sudden loss of consciousness, seizures, flaccid paralysis late sign Figure 4: Arnold, Agency for Toxic Substances and Disease Registry, Treatment Treatment of victims exposed to chemical warfare nerve agents is similar to the treatment of those poisoned by organophosphate insecticides. With decontamination and appropriate initial therapy, serious signs and symptoms of nerve agent toxicity rarely last more than a couple of hours. Victims with symptoms require immediate treatment with atropine IV or IM. Atropine aids breathing by drying secretions and opening airways. Atropine also blocks other effects of poisoning, such as nausea, vomiting, abdominal cramping, low heart rate, and sweating. Atropine will not prevent or reverse paralysis. Pralidoxime chloride is a medication with effects similar to the more readily available atropine and may be given during times of casualty surges should atropine be in short supply. An emergency nerve agent treatment kit known as the Mark I Kit has been designed for military personnel self-administration in the field. It consists of two spring-loaded devices for self-injection, one each containing atropine and pralidoxime chloride. The peak toxic effects of nerve agents occur within minutes to hours and go away within a hour period. People who were exposed but show no symptoms should be observed for at least 18 hours as some symptoms, including potentially fatal ones, have a gradual onset. Mustard agents rapidly penetrate cell walls and generate a highly toxic reaction that disrupts cell function and leads to cell death. This chemical reaction is temperature dependent and is aided by the presence of water, which explains why warm, moist tissues like eyes, airways, armpits, or crotches are affected more severely. Blister agents have the consistency of oily liquids that actually do possess an odor somewhat reminiscent to that of mustard greens, onion, garlic, or even horseradish. They are highly soluble in oils, fats, and organic solvents. They quickly penetrate skin and most covering materials or textiles, including rubber. Sulfur mustard, the nemesis of WWI trench warfare, is a persistent agent with low volatility at cool temperatures that quickly becomes a major vapor hazard as temperatures rise. Exposure to mustard vapors, not the more concentrated mustard liquid, is a primary medical concern, as mustard vapor is three times more toxic than a similar concentration of cyanide gas. Skin exposure to as little as one teaspoon of liquid sulfur mustard seven grams will be lethal to half of those exposed. Diagnosis Decontamination within 2 minutes of exposure is the most important intervention for people who have skin exposure to any of the tissue irritant mustards. Any living tissue affected undergoes irreversible cell damage. Decontamination, therefore, remains urgent even if a person shows no obvious sign and symptoms to an initial exposure. A new topical product designed to neutralize the toxicity of blister agents, and to an extent, nerve agents, was approved for use by the FDA in July of This product is known by the acronym RSDL, which stands for Reactive Skin Decontamination Lotion, and acts within seconds of being applied to the skin. For best effect, the lotion should be applied within three minutes of skin contamination. The residue left by the lotion, which is non-toxic, should be washed away at the earliest convenience. Treatment of blister agent exposure following decontamination is symptomatic. For most blistering agents, there is no agent-specific antidote. The blister agent Lewisite chlorovinyldichloroarsine is the only chemical in this grouping with a specific treatment. Lewisite is an arsenical vesicant that is a colorless to brown liquid with a fruity or geranium-like odor. A scavenger molecule known as dimercaprol or British anti-Lewisite works to bind the Lewisite compound, creating an effective antidote, when given as early as possible following exposure. Upper airway obstruction warrants aggressive airway management as tissues permeated by the vesicant agents will continue to worsen. Systematic burn care is essential because skin lesions are slow to heal and prone to infection. Treatment Treatment of victims exposed to chemical warfare nerve agents is similar to the treatment of those poisoned by organophosphate insecticides. Chemical Blood Agents Chemical warfare agents that

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affect the victim by being absorbed into the circulating bloodstream are referred to by the term Blood Agents. Many of these poisons contain cyanide ions, which once entered into the body and blood, chemically inactivate cytochrome oxidase, an essential component whose absence prevents cells from utilizing oxygen. The result is asphyxia with a small degree of cyanosis. Cyanide compounds act very rapidly, causing death within the first ten minutes of severe exposure. Fatalities may occur with inhalation or ingestion of the chemical agent. Cyanide-based compounds are frighteningly easy to obtain. Industrial uses for hydrogen cyanide are numerous. The liquid form of a cyanide agent could be inserted into a water supply or disguised in a strongly flavored food or liquid. Contrary to popular literature and entertainment media, cyanide compounds in the form of a gas make a poor weapon. The gaseous form is very volatile, disappearing rapidly into the environment and poses a grave threat to anyone handling it, especially those releasing it. In addition, the gaseous form either kills or has minimal effect, making it an all-or-nothing agent instead of creating mass casualties leading to an infrastructure collapse, the primary purpose of chemical weapons. Diagnosis Due to the short time interval between exposure and death, diagnosis must be made by observation and any known available facts regarding exposure. A bitter almond odor associated with the patient may suggest cyanide poisoning; however, the lack of odor is not a reliable exposure gauge. The effects of blood agents include metabolic acidosis, hyperventilation, sudden headache, a venous blood-O₂ level above normal, and hypotension. The mucosal membranes and skin of casualties tend to appear an unusual dark red because the tissue cells cannot utilize oxygen. Higher exposure levels provoke coma, convulsions, and cessation of respiration and heartbeat. Laboratory confirmations of the presence of cyanide or thiocyanate in blood or urine are useful for later confirmation of the initial diagnosis. Hydroxocobalamin, sodium nitrite and sodium thiosulfate are antidotes to cyanide when administered immediately. For hydroxocobalamin a standard dose of 5 gm. IV over minutes, with a second dose given in severe toxicity binds cellular and circulating cyanide molecules, which will then be excreted in the urine. IV sodium thiosulfate reacts with cyanide to form thiocyanate, which is excreted by the kidneys. Amyl nitrite inhalation, 1 ampoule 0. Full protection from lingering cyanide vapors can be achieved with activated charcoal filters. Chemical Incapacitating Agents Incapacitating agents include a wide range of chemicals whose actions produce physiologic or mental inability to function. In military terms, these agents are referred to as Harassing Weapons. CS is a fine powder which when airborne irritates mucosal tissues such as the eyes. May , OC oleum capsicum spray pepper spray used to break up a high school riot in Guam. An incapacitating agent known as 3-quinuclidinyl benzilate QNB or BZ may be the most commonly used compound of this nature currently in use. QNB has played a role in military, and even civil unrest actions in several countries such as Mozambique and Bosnia. There are no credible reports of its use by law enforcement in the United States although extensive time and funding have been channeled into the Department of Defense Joint Non-Lethal Weapons Program. It is pharmacologically related to commonly used anticholinergic drugs, and traces of this chemical are present within some over-the-counter sleeping medications. Lacrimating Agents tear gas are incapacitating agents used by police and military in the United States and other countries, primarily for riot control. The mode of action of these agents is an intense immobilizing irritation to the eyes, respiratory tract, and skin. Weapon grade versions of these agents can provoke fatal inflammatory reactions in vulnerable populations, particularly the very young and very old. New incapacitating agents are cropping up all the time. In October , Soviet security officials flooded a crowded Moscow theater with an aerosolized form of the common post-surgical pain medication fentanyl. Unfortunately, it also meant that people perished with no accurate account of how many deaths were directly due to the incapacitating agent used.

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Chapter 4 : Weapon of mass destruction - Wikipedia

The Countering Weapons of Mass Destruction (CWMD) Office is a support component within the Department of Homeland Security. Secretary Kirstjen Nielsen established the CWMD Office in December by consolidating primarily the Domestic Nuclear Detection Office and a majority of the Office of Health Affairs, as well as other DHS elements.

February 1, Course price: The following information applies to occupational therapy professionals: No partial credit will be awarded. The planners and authors of this course have declared no conflict of interest and all information is provided fairly and without bias. No commercial support was received for this activity. When you finish this course you will be able to: Discuss the parameters of terrorism and terrorism-like events as a twenty-first-century political and social challenge, and identify shared elements not dependent on mechanism or definition. For a chemical weapons event, summarize the agents most commonly used, the epidemiologic clues to and symptoms of a chemical release, and the appropriate first-receiver actions. Describe the clinical features and treatment of exposure or injury from radiation, including acute radiation syndrome ARS , and outline ways to protect staff and patients during a radiation incident. What comes to mind when you hear the word terrorism? Bombings, mass casualties, religious or political zealotry, chemical or biological substances, mass shootings, or a particular incident such as September 11, Perhaps all of the above. Some may think first of perpetrators of terrorist acts while others may think of reasons given for such acts—and, as a healthcare worker, what comes first to your mind is quite likely all the possible results of terrorist actions. While the use of violence lies at the heart of most definitions of terrorism, arriving at a more nuanced definition often depends on the political, ethnic, or religious perspective of those doing the defining. For healthcare professionals facing the medical consequences of a terrorist act, this distinction may not seem especially pertinent. There is much debate over the motivations for terrorism. Traditionally it has been thought to reflect religious, political, or ideological beliefs, and the targets of attacks to be symbolic in some way. Sparking fear in victims and the wider public is often a motivating element. Terrorist acts have occurred throughout history, but after the Oklahoma City bombing in and the events of September 11, in the United States, such behavior became an ongoing element of the public consciousness. Increasingly, events have occurred that many think of and label as terrorism even though they fall entirely into a definitional and legal gray area. Perhaps most familiar are mass shootings, but a few have been bombings or the weaponizing of vehicles. Wide access to the Internet means that information about these events travels more quickly, is more widely disseminated, and discussion is more animated and highly charged than ever before. Often these events have obvious things in common with events officially labeled as terrorism, but there are some important distinctions. As Nevadans became acutely aware in October , with the mass shooting outside the Mandalay Bay Resort in Las Vegas, terrifying events can be perpetrated by a single person using no weapons of mass destruction chemical, biological, or radiological materials and with intensely personal reasons and no apparent political motivation. Within the law the label of terrorism is impossible. These events have sparked debate and calls for change but the issues are complex and there is often little consensus. Citizens are often surprised to find there is no domestic terrorism law that defines these terrifying events as terrorism Axelrod, ; CNN, ; Gillin et al. Myre, ; Stuart, Interestingly, Nevada is one of a group of states that do have their own anti-terrorism laws NRS: However, one can certainly make the argument that the way in which mass shootings or bombings or vehicular murders are perpetrated and the effects they have on victims and near-victims make them terrorism in everything but name. The results can be very similar—mass casualties, surge capacity issues, and widespread fear and panic must all be dealt with by healthcare professionals. Their best defense will always be good preparation. What Is Being Done? For the public and for healthcare workers, education about the proper responses to terrorist activities, along with thorough emergency preparedness, is the best available defense. In the Nevada legislature passed Assembly Bill , which mandates training for nurses and other healthcare professionals to ensure they have a basic knowledge of potential terrorist threats and how to respond to them.

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As noted, the effects of terrorist acts are often not only physical; fear may loom large among citizens, not only among those at the actual site of the attack but also among others much farther away. Healthcare workers need to be prepared to address this fear, even in patients who have sustained little or no physical injury. In addition, psychological effects are recognized consequences of certain types of injuries and will be discussed in the sections that follow. Analysis of these events and responses to them have resulted in a large body of useful information in the form of resources for individuals and organizations seeking to educate and prepare themselves. The State of Nevada has recently restructured its health department and redesigned and updated its corresponding websites and resource links. Contact information and links to both state and federal resources appear at the end of this course. Not everyone means precisely the same thing when they use the term, but the definition used by the U. The possibility that terrorists might resort to the use of WMD is of grave concern. The four types of WMD vary in their ability to cause damage, in their ease of production and use, in the kinds of physical and human damage they can be expected to cause, and in their likelihood of use by terrorist organizations. All four types of WMD offer advantages and obstacles to those who would create and use them. Some weapons could produce significant damage and high death tolls, while the greatest effects of others would be widespread panic and expensive cleanup operations. Acts of bioterrorism range from a single exposure directed at an individual by another individual to government-sponsored biological warfare resulting in mass casualties. Bioterrorism differs from other methods of terrorism in that the materials needed to make an effective biological agent are readily available, require little specialized knowledge and are inexpensive to produce CDC, According to the CDC: Chemical releases can be unintentional, as in the case of an industrial accident, or intentional, as in the case of a terrorist attack CDC, Some chemicals that are hazardous have been developed by military organizations for use in warfare beginning in World War I. Examples are nerve agents such as sarin and VX, mustards such as sulfur mustards and nitrogen mustards, and choking agents such as phosgene. It might be possible for terrorists to get these chemical warfare agents and use them to harm people CDC, Since the world wars, there has been research and stockpiling of chemicals by many countries, but mutual deterrence has generally prevailed. One hundred ninety-two countries have signed all or elements of the CWC, which not only requires destruction of chemical weapons but prohibits, among other things, developing, producing, acquiring, stockpiling, and transferring of these weapons NTI, One country that has not signed the CWC is Syria, and in Syrian president Bashar al-Assad did use chemical weapons against Syrian citizens who were rebelling against his autocratic government. Many hazardous chemicals are used in industry eg, chlorine, ammonia, and benzene. Others are found in nature eg, poisonous plants. Some could be made from everyday items such as household cleaners. These types of hazardous chemicals also could be obtained and used to harm people, or they could be accidentally released CDC, The techniques for making destructive chemical weapons are well understood and the necessary equipment is commonly available. Once made, these weapons can be easily concealed. In a Japanese cult group known as Aum Shinrikyo made and dispersed the nerve agent sarin several times in the Tokyo subway, killing 17 people and sending 5, to the hospital. These incidents made it clear that even small groups could manage the manufacture and dispersal of deadly chemical weapons NTI, b,e. Chemical and Biological Weapons Chemical weapons use the toxic properties of chemicals to cause harm, up to and including death. Only a relatively small amount of a chemical agent is needed to produce significant physical and psychological effects. Historically, chemical weapons have been the most widely used and proliferated type of WMD, but they receive far less attention than do biological and nuclear weapons NTI, b,e. The potential danger of a given weapon is measured by its lethalityâ€”how effectively it kills; its infectivityâ€”how easily it spreads; and its virulenceâ€”how likely it is to cause disease. Chemical and biological weapons are financially and logistically easier to acquire than are radiologic or nuclear weapons. They will cause more casualties and have a greater psychological impact than conventional weapons, but cause less destruction than devices involving radiation. Chemical weapons are somewhat easier than other weapons for terrorist groups or even individuals to manufacture because the manufacturing knowledge is readily available, many precursor chemicals have

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legitimate uses and are thus legally available, there is poor security around these chemicals in some countries, and small chemical manufacturing equipment is commonly available. Radiologic and Nuclear Weapons Radiologic and nuclear weapons rely on the same sources for damage—explosive power and radiation—but there is a distinction in their forms. In addition, true nuclear weapons produce tremendous heat, which can cause burns and start fires. In the last fifty years, most radiation injuries have been the result of accidents; however, the intentional deployment of a nuclear or radiologic device is a potential terrorist threat. Modern nuclear threats can be divided into five general categories: An attack on nuclear power plants A malevolent act using simple radiologic devices Terrorist use of a radiologic dispersal device Detonation of an improvised nuclear device Detonation of a sophisticated nuclear weapon Waselenko et al. These devices require little more skill than is needed to make a conventional bomb and their components are easier to acquire. RDDs utilize conventional explosives to disperse a radioactive material packaged in the device, as opposed to a nuclear device, which creates radiation with its explosion. While it is unlikely that many people would die from radiation poisoning as a result of the explosion of an RDD, there would be some deaths and injuries and the costs of cleanup could be considerable. Nuclear weapons present significantly higher obstacles in terms of the skill needed to produce them and the financial and logistical support needed to acquire materials, prepare the devices, and transport them Weiss, However, the potential for damage, injuries, and death is much higher because they are significantly more powerful weapons. Chemical Weapons Chemical weapons agents are classified as either nonpersistent or persistent. Nonpersistent agents dissipate within a few hours and are most threatening to the lungs. Persistent agents may take up to one month to dissipate if they have been deposited on soil, vegetation, or objects. They are most threatening to the skin. Scientists often categorize hazardous chemicals by the type of chemical or by the effects a chemical would have on people exposed to it.