USACHPPM

HEALTH INFORMATION OPERATIONS (HIO) UPDATE

8 August 2002

The HIO Update provides information regarding global medical and veterinary issues of interest to the United States (US) Army. The update does not attempt to analyze the information regarding potential strategic or tactical impact to the US Army and as such, should not be regarded as a medical intelligence product. Medical intelligence products are available at http://mic.afmic.detrick.army.mil/. The information in the HIO Update should provide an increased awareness of current and emerging health-related issues.

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HOT ISSUES

Botulism Treatment – PNAS

On 6 August, the BBC reported that researchers found three antibodies that each join with a different part of the *Clostridium botulinum* toxin molecule to neutralize the toxin, according to a study in the PNAS. According to the report, the treatment could be mass-produced and stockpiled in case of a bioterrorism attack. [View report]

Cigarette Smoke and Cancer – Tufts University

On 29 July, EurekAlert! Reported that cats living in homes where people smoke cigarettes are more than twice as likely as other cats to acquire a deadly form of cancer known as feline lymphoma, according to a study in cats conducted at Tufts University School of Veterinary Medicine. The authors concluded that this study offers a compelling reason for further study of the relationship between passive smoke and non-Hodgkins lymphoma in humans, which is similar to lymphoma in cats. The study is Environmental tobacco smoke and risk of malignant lymphoma in pet cats. Amer J of Epi 2002;156 (1 Aug). [View report]

Clinical Skills Test – National Board of Medical Examiners (NBME)

On 28 July, CNN reported that the NBME for physicians plans to make clinical skills testing, e.g., handling of patients or bedside manner, a part of its exam for medical license beginning in 2004. The "bedside manner test" is being piloted at three Philadelphia medical schools with other cities likely to follow, beginning with Atlanta this fall. The <u>AMA</u> is calling on the board to hold off making the test a requirement unless its effectiveness is proven and published in a peer-reviewed medical journal. [View report]

Fish Antibiotics – Abuse of Drug

On 6 August, the <u>AFPS</u> reported that a Pentagon medical facility physician recently sent a letter to the <u>NEJM</u> detailing a case study of a Special Forces soldier treating a sinus infection with over-the-counter antibiotics meant for fish. Components in animal pills may be very different from the human formulation and could interrupt the absorption of that antibiotic in the gut or stomach resulting in a different dose than expected.

Although the problem is not believed to be widespread in the military, the <u>DoD</u> contacted the <u>FDA</u> about the abuse and has launched an education effort to teach service members the dangers of self-diagnosis and self-medication. [<u>View report</u>]

Medical Threat Briefings - USACHPPM

An updated Operation Enduring Freedom Medical Threat briefing and a new Central and South America Medical Threat briefing are now available for viewing and/or downloading at the USACHPPM Deployment Resources Website. [View report]

Mold Information Products - USACHPPM

Mold has gained increased attention as a potential problem at installations around the world. USACHPPM has developed a number of resources to assist preventive medicine and installation public works and housing personnel identify and remediate mold problems. The products can be found on the USACHPPM web site. [View report]

Smallpox Vaccine – Israel

On 5 August, the *Washington Post* reported that Israel has produced enough smallpox vaccine for its entire population in preparation for a possible biological weapons attack by Iraq. Israel also reportedly produced enough vaccine to inoculate tourists and about 300,000 foreign workers. The government does not plant to begin immunization unless certain triggers occur, which might include a US strike on Iraq, a terrorist attack, or some other "mega-event" according to the Health Ministry. [View report]

Tetracyclines and Anti-Prion Activity – PNAS

On 2 August, Reuters reported on a study in the PNAS in which brain tissue infected with vCJD or BSE was incubated with tetracycline or doxycycline resulting in a dose-dependent reduction in protease resistance. This was accompanied by a decrease in prion infectivity. The results suggested that it might be possible to use antibiotics to inactivate prions in potentially contaminated products. The researchers stated "tetracyclines should be reconsidered for pharmacological effects independently from the antibiotic activity." The authors also stated that in addition to their potential use in prion diseases, tetracyclines have therapeutic potential in neurodegenerative disorders associated with protein misfolding. [View PNAS report free or View Reuters report, which requires paid registration]

USCENTCOM

Nothing Significant to Report

USEUCOM

Cholera - Africa

On 1 August, <u>AFMIC</u> reported cholera outbreaks were ongoing in countries throughout Africa, specifically Burundi, Cote d'Ivoire, Democratic Republic of the Congo, Ghana, Mozambique, Niger, Nigeria, Tanzania, and Uganda. [<u>View report</u>; requires registration]

Flooding - Czech Republic and Poland

On 1 August, <u>AFMIC</u> reported a state of emergency due to severe flooding was declared in the Blansko region of Southern Moravia, Czech Republic and the western and southwestern regions of Poland. Electricity, running water, sewage treatment, and communication infrastructures have been severely disrupted, and many homes and commercial buildings have been damaged increasing the risk for waterborne, foodborne, and vectorborne diseases. [View report; requires registration]

Influenza-like Illness – Madagascar

On 5 August, the WHO reported that 1,930 cases including 153 deaths of an influenza-like illness mainly affecting the southern part of Madagascar is ongoing. On 31 July, the BBC reported an influenza-like illness occurred in the village of Ikongo in the central highlands province of Fianarantsoa that had been ongoing for over a week. Many people are using traditional methods to treat the virus, believing it to be influenza. Sample results are pending. [View WHO report or View BBC report]

Legionnaires' Disease - England

On 6 August, the BBC reported 82 people were confirmed to have developed Legionnaires' disease while 32 more suspect cases are being investigated in an outbreak in Cumbria. One death is also being investigated in the outbreak. Physicians reported "concern" for four people out of 19 in intensive care. Furness General Hospital, which is treating most of the cases, has cancelled all non-urgent surgery for this week to help it cope with the biggest outbreak of Legionnaires' disease in Britain in 10 years. The source is thought to be an air conditioning system that was found to be expelling steam at a council-run arts and civic center in Barrow-in-Furness. The facility was closed on 1 August. Public health officials are interviewing any persons who visited the Barrow areas from 1 July through the plant closure to include people on board ships that passed through Barrow. Previous outbreaks have claimed the lives of up to 20% of those infected with the pneumonia-like illness. [View report]

Meningitis - Uganda

On 29 July, New Vision reported that the Ugandan Ministry of Health has embarked on a massive vaccination campaign against meningitis, which recently killed an unspecified number of people in the Ibanda sub-district and left several soldiers at Bihanga Military barracks bedridden. Health officials reported that all soldiers in Bihanga Barracks and residents in the neighboring areas would be vaccinated. A dry spell and overcrowding

in some areas had reportedly encouraged the spread of the meningitis. The specific etiologic agent was not mentioned in the report. [View report]

Norwalk-like Virus – Scotland Hospitals

On 5 August, the BBC reported that nine wards were closed and all routine operations cancelled at Derriford Hospital in Plymouth where 145 staff members and 175 patients have fallen ill. A further 13 patients and six staff members were infected at the Mount Gould hospital, also in Plymouth. The infection is thought to be due to Norwalk-like virus, and hospitals were hoping to be back to normal within four days. [View report]

Rat Poison and Suicide Bombers – Israel

On 6 August, ABC News reported that Palestinian bomb-makers are now adding rat poison to their bombs in an attempt to increase casualties. Rat poison was used in the 17 June suicide bombing at a bus stop in the annexed Jerusalem neighborhood of Gilo and on 27 March in a suicide bombing in the seaside resort of Netanya. The terrorists reportedly use the poison, which is an anti-coagulant, to cause survivors to bleed more profusely from their wounds and to increase the terror aspect. [View report]

vCJD and Blood Risk – **UK**

On 3 August, the BBC reported that tests at the UK's Institute of Animal Health indicated that one in six animals given blood from "infected" sheep appeared to develop an encephalopathy. The authors suggest that red cells and plasma may have infectivity for vCJD and that the risk of vCJD transmission is "appreciable." The UK government had previously described this risk as "theoretical." The researchers plan to publish their findings in November. The UK has precautionary measures in place because of the theoretical risk of transmission via transfusion; however, there is reportedly no evidence of transmission from infected blood transfusions, even though 22 people have received transfusions from eight people who later contracted vCJD. At present, there is no test for detecting vCJD in human blood although one may become available in 2003. Expert advisors are expected to make new recommendations on blood transfusions within the next few months. Other researchers previously demonstrated BSE transmission in animals fed infected brain. [View report]

Viagra and Nosebleeds – Journal of the Royal Society of Medicine

On 2 August, the BBC reported that the *Journal of the Royal Society of Medicine* has recently published two cases of males (ages in 50's and 70's) with high blood pressure who had taken Viagra to boost sexual performance and subsequently suffered nose bleeds lasting five to six hours that required medical intervention. The researchers suggested an association due to the temporality and the fact that nasal passages contain erectile tissue, which can become irritated with use of the medication. According to the report, Pfizer stated that data from clinical trials and the surveillance of adverse events following Viagra's introduction indicated that reports of nosebleeds

among patients taking the drug are extremely rare and did not suggest an association. In the longest running study of Viagra to date, which includes monitoring of 1,000 users over a four-year period, no nosebleeds have been reported. [View report]

WNV - Israel

On 26 July, the Haaretz Daily reported that Environment Ministry officials had found another WNV hot spot in the Jezreel Valley where mosquitoes carrying the virus were found near Moshav Hayogev. The ministry ordered Jezreel Valley and Megiddo councils to spray the infected area to kill mosquitoes. The ministry recently found WNV could be developing in parts of the Negev and Dead Sea region. [View report]

Yersinia enterocolitica serogroup O:8, biovar 1B – Germany

On 1 August, the *Eurosurveillance Weekly* reported that *Y. enterocolitica* O:8, biovar 1B was diagnosed for the first time in Germany in a 4-year-old male from Bautzen-Bischofswerda in the state of Saxony, who presented with fever and large volumes of thin, slimy stools that had a strong smell. Strains belonging to serogroup O8 have been previously identified in Europe, but they did not possess the virulence plasmid and were thus regarded as non-pathogenic. This case may be the first documented case of infection with the American strain of *Y. enterocolitica* O:8, biovar 1B in Europe. This strain is endemic in the US and is identified on a regular basis as the causative agent of intestinal yersinioses. It has been isolated from sporadic cases in Japan. [View report]

USJFCOM

Carbapenem Resistance – New York City Study

On 29 July, the John Hopkins Division of Infectious Diseases posted the following summary of an 8 July study in the *Archives of Internal Medicine* in which the authors found three strains of carbapenem resistant *Pseudomonas aeruginosa* accounted for the majority of isolates in the 15 hospitals that participated in a study covering the period 1 July 1999 to 30 September 1999. For *Acinetobacter baumannii*, a relatively new agent of nosocomial infections, a single strain accounted for 62% of the resistant isolates, which was isolated from all 15 hospitals. The editorial comments included that carbapenem resistance is emerging as an important health problem and it is likely that the interhospital transmission of the strains demonstrated in this study is likely to become far more generalized. The study is Landman D, et al. Citywide clonal outbreak of multiresistant *Acinetobacter baumannii* and *Pseudomonas aeruginosa* in Brooklyn, NY: the preantibiotic era has returned. *Arch Intern Med* 2002;162:1515. [View report]

Foot and Mouth Disease (FMD) – Russia

On 5 August, ProMED reported that outbreaks of suspect FMD have been discovered among cattle in a number of villages in Chechnya's Urus-Martanovskiy and Groznenskiy

Districts. As a result veterinary health officials imposed quarantine and began mass vaccination of animals. [View report]

National Nuclear Waste Repository – Nevada

On 24 July, the *Los Angeles Times* reported that President Bush signed a bill formally adopting Yucca Mountain as the nation's repository for used nuclear reactor fuel. The DOE is preparing a technical application to the NRC for approval to construct the \$58 billion project. Nevada's science advisors will reportedly use the NRC hearings to argue that the project is technically flawed and unsafe. [View report]

State Bioterrorism Laws - US

On 22 July, USA Today reported that 16 states and the District of Columbia have passed all or parts of The Model State Emergency Health Powers Act. The Model Act was developed for the CDC to provide guidance to state legislatures on enforcing quarantines, vaccinating people, seizing and destroying property without compensation, and rationing medical supplies, food, and fuel in a public-health emergency. The Model Act has been rejected or stalled in 22 states primarily by the efforts of a broad coalition of opponents ranging from civil libertarians to conservative physicians who say the proposed law would violate individuals' rights and give government too much power. [View report]

Tularemia – Texas

On 3 August, ProMED posted a report by the *Amarillo Globe Newspaper*, which reported that tularemia was confirmed as the cause of death in 16 dead rabbits and five dead squirrels in the Gene Howe Wildlife Management Area north of Canadian, Texas. City health officials warned health care professionals to be on alert for the appearance of tularemia in humans and pets. Symptoms in humans include fever, painful swollen lymph nodes (if from tick bite), abdominal pain (if ingested), and pneumonia-like symptoms (if inhaled). Individuals who perform lawn work or come into close contact with wildlife are at higher risk of disease. [View report]

Waterborne Nosocomial Infections - Archives of Internal Medicine

On 29 July, the John Hopkins Division of Infectious Diseases posted the following summary of an 8 July study in the *Archives of Internal Medicine* in which the authors reviewed water-borne nosocomial infections through a MEDLINE search from 1996-2001. *Legionella pneumophila* was excluded. Forty-three outbreaks were identified. The major pathogen was *Pseudomonas aeruginosa*. The source of the contamination problem was attributed to biofilms, corrosion of distribution lines, aging systems, and water stagnation. Patient exposure resulted from showering, bathing, drinking, and contact with contaminated medical equipment. Preventive guidelines are available for waterborne infection in the community and for waterborne nosocomial infections involving *Legionella* and *Aspergillus*, but guidelines for preventing other forms of

waterborne infections in hospitals are not currently available. The authors suggested the following: (1) minimize patient exposure to tap water by implementing the CDC guidelines for preventing Legionella even if the hospital water systems are not colonized by this agent and use sterile water or other water disinfection techniques, (2) education of staff and patients, and (3) targeted surveillance, e.g., intensive surveillance of water when infections occur or routine surveillance of water systems in sites caring for high risk patients. The study is Anaissie EJ, Penzak SR, Dignani MC. The hospital water supply as a source of nosocomial infections: a plea for action. Arch Intern Med 2002;162:1483. [View report]

WNV - US

On 6 August, Fox News reported that 72 human cases of WNV (five deaths) have now been confirmed in Louisiana – the nation's largest outbreak. The Governor of Louisiana has declared a state of emergency due to WNV, which could bring in federal money to help fight mosquitoes. The state initiated a new website to provide the public with updated, comprehensive information on WNV, which is at FightThe BiteLouisiana. Mississippi has reported 22 confirmed cases this year. Texas has 10 suspected cases, and Arkansas has one suspect case, which would be the first in the state. [View report]

USPACOM

Dengue Fever – Bangladesh

On 30 July, ProMED reported that dengue fever has killed at least seven people in July and has affected some 200 others. Dhaka's leading diabetic hospital reported that five to six dengue patients were admitted daily for most of the month. Municipal health squads were taking preventive measures to contain the infection. An outbreak of dengue fever in Bangladesh last year claimed more than 44 lives. [View report]

Dengue Fever – Taiwan

On 6 August, ProMED reported that over 500 cases of dengue fever have now been confirmed in Taiwan. Health agencies in Kaohsiung County are planning environmental preventive measures in undeveloped areas in Fengshan City. Fengshan City has reportedly requested military forces to help with efforts. [View report]

Diarrhea - Bangladesh

On 2 August, Reuters reported that health officials were treating about 2,000 people suffering from illnesses such as diarrhea in flood-hit areas. More than 40 people have been killed, 80,000 marooned, and nearly three million people's homes have been flooded across Bangladesh in the previous 11 days. [View report]

Encephalitis - India

On 5 August, the BBC reported that at least 100 people, mostly children, have died from Japanese encephalitis virus (JEV) in six districts during the past month. The principal of Assam Medical College in Dibrugarh said that nearly 300 patients had been admitted since the end of June. The disease is reportedly spreading to other areas of the Brahmaputra Valley and if immediate measures are not taken will likely spread to other areas of the state. Assam was the worst hit state in the recent flooding. Death tolls from weeks of flooding, landslides, and illness in South Asia have now passed 570. On 5 August, Agence France-Presse (AFP) also reported that diseases like jaundice, diarrhea, and encephalitis have been spreading very fast in various parts of eastern and western Assam. [View BBC report or View AFP report]

Malaria - South Korea

On 1 August, <u>AFMIC</u> reported that previous reports of malaria deaths along the demilitarized zone in South Korea were erroneous. The Korean National Institute of Health did confirm that 380 vivax malaria cases have been reported this year. [<u>View report</u>; requires registration]

USSOUTHCOM

Dengue Fever – El Salvador and Honduras

On 30 July, ProMED reported that El Salvador declared a national emergency on 26 July due to increasing dengue fever cases and the emergence of a new serotype of the virus for the country, dengue virus type 3 (DEN-3). On 6 August, ProMED reported the risk of contracting a clinical form of dengue fever in El Salvador was recently estimated to be 5.4 times greater than compared to the same period last year. The risk with regard to DHF was 29.4 times greater. Previous reports had indicated a possible decline in infection when national incidence dropped to 16 cases per day, but the incidence is now estimated at 30 cases per day. Honduras also declared a national emergency on 22 July. Nine deaths have been confirmed due to dengue fever and another 12 are suspect. The risk of contracting a clinical form of dengue fever is 3.58 times higher than last year in Honduras, and the trend is growing. The risk of contracting DHF is 18.6 times greater. [View 30 July report or View 6 August report]

Dengue Fever – Guatemala

On 6 August, ProMED reported that the first two deaths from DHF had occurred in two children, 10 and 15 years old, from the eastern Guatemalan towns of Shororagua and San Luis Jilotepeque. Health officials are monitoring 16 people who are suspect for DHF. So far this year, 2,341 cases of dengue fever have been reported of which 230 have been confirmed. The government is maintaining a health cordon along the border with Honduras and El Salvador in an attempt to limit further spread from these countries. [View report]

Dengue Fever – Mexico

On 1 August, <u>AFMIC</u> reported that the Mexican government has declared a public health alert due to 1,666 cases of dengue fever and 249 cases of <u>DHF</u> reported countrywide. Cases have been reported in much of the country, including the major tourist areas of Acapulco and Cancun. Increased rainfall is blamed for the outbreak. The government has quarantined areas along the southern border to stop the spread of dengue fever from neighboring Guatemala and Belize. [<u>View report</u>; requires registration]

Dengue Fever – Trinidad and Tobago

On 30 July, ProMED posted a BBC report in which it stated the Trinidad and Tobago government has denied an outbreak of dengue fever even as the Health Minister announced plans to deal with *Aedes aegypti* mosquitoes, vectors for the disease. At least 30 patients have been reported at the San Fernando Hospital and one person suffering from dengue hemorrhagic fever was gravely ill. The government has released advertisements that warned anyone found guilty of breeding *Aedes aegypti* mosquitoes were subject to a fine. The ad informs residents to remove tins, tires, and unused containers from their property. [View report]

Floods - Venezuela

On 2 August, the <u>IFRC</u> reported that emergency situations due to flooding have been declared in the states of Apure, Amazonas, Bolivar, Delta Amacuro, and Monagas, and an alert has been declared for Barinas. Damage to infrastructure, such as bridges and roads, is extensive as is loss of crops and livestock. A lack of drinking water has occurred as many wells have been contaminated by floodwaters. The flooding has also led to a proliferation of mosquitoes and other vectors spreading diseases, and there has been a significant increase in skin diseases. Federal officials are planning to fumigate the region to eliminate mosquito-breeding sites. [View report]

Please contact the below-listed POC for suggested improvements and/or comments regarding this report. This report is also available on the USACHPPM website at http://chppm-www.apgea.army.mil/Hioupdate/.

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ACRONYMS

ACIP - Advisory Committee on Immunization Practices

AFMIC - Armed Forces Medical Intelligence Center

AFPS - American Forces Press Service

AMA - American Medical Association

ATSDR - Agency for Toxic Substances and Disease Registry

AVIP - Anthrax Vaccine Immunization Program

BSE – Bovine Spongiform Encephalopathy

CDC – Centers for Disease Control and Prevention

CDMHA – Center for Disaster Management & Humanitarian Assistance founded in 1998 as a partnership between the University of South Florida and Tulane University. The mission of the CDMHA is to facilitate collaborative education, training, research and information and communication services between disaster response and humanitarian assistance agencies (e.g. the military,

NGOs, PVOs) primarily throughout the western hemisphere.

CDR – Communicable Disease Report (England)

DARPA - Defense Advanced Research Projects Agency; http://www.darpa.mil/

DHF - Dengue Hemorrhagic Fever

DHHS - Department of Health and Human Services

DoD - Department of Defense

DOE – Department of Energy

EPA – Environmental Protection Agency

ESSENCE - Electronic Surveillance System for the Early Notification of Community-Based Epidemics

EU - European Union

FBI - Federal Bureau of Investigation

FDA - Food and Drug Administration

FMD - Foot and Mouth Disease

HIV/AIDS - Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome

IDP - Internally Displaced Persons

IFRC - International Federation of Red Cross and Red Crescent Socieities

JAMA - Journal of the American Medical Association

MSDS - Material Safety Data Sheet

NAS - National Academy of Sciences

NEJM - New England Journal of Medicine

NGO - Non-Governmental Organization

NIH - National Institutes of Health

NIOSH - National Institute for Occupational Safety and Health

NRC – Nuclear Regulatory Commission

OCHA - Office for the Coordination of Humanitarian Affairs

OIE - World Organisation [sic] for Animal Health

OSHA - Occupational Safety and Health Administration

PAHO - Pan American Health Organization

PCR – Polymerase Chain Reaction

PNAS – Proceedings of the National Academy of Sciences

TB - Tuberculosis

 $UK-United\ Kingdom-England,\ Northern\ Ireland,\ Scotland,\ and\ Wales$

UN – United Nations

UNAIDS – Joint United Nations Programme [sic] on HIV/AIDS

UNHCR – United Nations High Commissioner for Refugees

USAID - United States Agency for International Development

USAMRIID - United States Army Medical Research Institute of Infectious Diseases

USDA – United States Department of Agriculture

USPS - United States Postal Service

vCJD - variant Creutzfeldt-Jakob Disease

VOA - Voice of America, an international multimedia broadcasting service funded by the US Government

WHO - World Health Organization

WMD - Weapons of Mass Destruction

WNV - West Nile Virus

WRAMC - Walter Reed Army Medical Center