

DoD Smallpox Response Plan

ANNEX J TO SMALLPOX RESPONSE PLAN RESOURCES.

29 September 2002

APPENDIX J-1

Acronyms and Abbreviations.

ACAM – Acambis
ACC – Acute Care Center
ACIP - Advisory Committee on Immunization Practices
AE - Adverse Event
AFCITA - Air Force Complete Immunization Tracking Application
AFMAN – Air Force Manual
AFMLO - Air Force Medical Logistics Office
AFMOA - Air Force Medical Operations Agency
AHA – American Hospital Association
AIA – American Institute of Architects
AIDS - Acquired Immune Deficiency Syndrome
AIIR – Airborne Infectious Isolation Room (or area, AIIA)
AMA - American Medical Association
AMSA - Army Medical Surveillance Activity
AO – Area of Operations
AOI – Area of Interest
AOR – Area of Responsibility
AP - Aventis Pasteur
APHIS – Animal and Plant Health Inspection Service
APIC - Association for Professionals in Infection Control & Epidemiology
AHA- American Hospital Association
ASHE – American Society for Healthcare Engineering
ATI – Air Transportable Isolator (a chamber to contain patients with infectious diseases)
ATOC – Air Transportation Operations Center
BAT - Biological Augmentation Team
BioMedAC-Biological Medical Advisory Committee
BMBL - Biosafety in Microbiological and Biomedical Laboratories
BSC – BIOLOGICAL safety Cabinets
BSL - Bio-Safety Level
BPRP - Bioterrorism Preparedness & Response Program, CDC
BW- Biological Weapon/ Warfare
C-type Facility - (C for confirmed) Mode of shelter and care for people diagnosed with smallpox
CBRN - Chemical Biological Radiologic Nuclear
CBRNE – Chemical Biological Radiologic Nuclear Explosive
CDC - Centers for Disease Control & Prevention
CENTCOM - Central Command
CFR - Code of Federal Regulations

DoD Smallpox Response Plan

CINC - Commander-In-Chief
CIL- Critical Information Lists
CIO - Center/Institute/Office
CISA - Clinical Immunization Safety Assessment centers of excellence
CHPPM - Center for Health Promotion & Preventive Medicine
CM – Consequence Management
CMV - Cytomegalovirus
CONUS - Contiguous United States
CPR – Cardiopulmonary resuscitation
CXR – Chest radiograph X-ray
DA - Department of Army
DD - Department of Defense
DEERS - Defense Eligibility Enrollment Reporting System
DEPMEDS - Deployable Medical Systems
DIC – Disseminated Intravascular Coagulation
DGR - Dangerous Goods Regulations
DHHS - Department of Health & Human Services
DLA – Defense Logistics Agency
DMDC - Defense Manpower Data Center
DMAT – Disaster Medical Assistance Teams
DNA – Deoxyribonucleic Acid
DNIF – Duties Not Including Flying
DOC - Distribution Operations Center, USAMMA
DOT - Department of Transportation
DOMS- Directorate of Military Support
DoD - Department of Defense
DRG – Dangerous Goods Regulations
DSN - Defense Switch Network
DSS – Distribution Standard System
DVC - DynPort Vaccine Company
DVRD - Division of Viral & Rickettsial Diseases, CDC
DWI-Disaster Welfare Information
DQ - Division of Quarantine, CDC
EHBS - Enhanced Hospital-Based Surveillance
EISO - Epidemic Intelligence Service Officer
EPA - Environmental Protection Agency
Epi-Team - Epidemiologic Response Team
EPO - Epidemiology Program Office, CDC
EPRB - Emergency Preparedness & Response Branch, CDC
ESF – Emergency Support Function
ER - Emergency Room
ESSENCE - Electronic Surveillance System for the Early Notification of Community
Based Epidemics
EUCOM - European Command
FBI - Federal Bureau of Investigations
FDA - Food & Drug Administration

DoD Smallpox Response Plan

FEMA - Federal Emergency Management Agency
FMP – Family Member Prefix
FPCON – Force Protection Condition
FOSC- Federal On-Scene Coordinator
FRP - Federal Response Plan
GCFS – Granulocyte Colony Stimulating Factor
GFVPRI - Generalized Febrile Vesicular-Pustular Rash Illness
GTN – Global Transportation Network
GVPRI - Generalized Vesicular-Pustular Rash Illness
HAD – Hospital-Approved Disinfectant
HCP - Health Care Providers
HCW – Healthcare Worker
HEPA - High-Efficiency Particulate Air (filter)
HHS - Health & Human Services, Department of
HICPAC – Hospital Infection Control Practices Advisory Committee
HIP - Hospital Infections Program, CDC
HIV/STD/TB - National Center for HIV, STD, & TB Prevention, CDC
HQ – Headquarters
HSRRB - Human Subjects Research Review Board (Army Surgeon General's IRB)
HSV - Herpes Simplex Virus
HVAC – Heating Ventilation and Air Conditioning
IATA - International Air Transportation Association
IAW – In Accordance With
ICAO – International Civil Aviation Organization
ICD9 – International Classification of Diseases, 9th edition
ICP – Infection Control Professionals
ICU - Intensive Care Unit
ICRA – Infection Control Risk assessments
ID - Infectious disease
IDSA – Infectious Diseases Society of America
IERA - Institute for ESOH (Environmental, Safety & Occupational Health) Risk Analysis,
USAF
ICU – Intensive Care Unit
IGIV - Immune globulin intravenous
IM – Intramuscular
IND - Investigational New Drug
IRB – Institutional Review Board (medical research ethics committee)
IV – Intravenous
IVIG - see IGIV
JAMA - Journal of the American Medical Association
JIC - Joint Information Center
JPMPG - Joint Preventive Medicine Policy Group
JS - Joint Staff
JSSSED – Joint Service Sensitive Equipment Decontamination
JVAP - Joint Vaccine Acquisition Program, DoD
LACUC - Laboratory Animal Care & Use Committee

DoD Smallpox Response Plan

LRMC – Landstuhl Regional Medical Center
LFA – Lead Federal Agency
LRN - Laboratory Response Network
MADCP – Mortuary Affairs Decontamination Collection Point
MEDCEN - Medical Center (US Army)
MEDCOM - Medical Command (US Army)
MHS - Military Health System
MMWR - Morbidity & Mortality Weekly Report
MEDPROS - Medical Protection System (US Army software application)
MRO – Materiel Release Order
MTF - Military Treatment Facility
NACI - National Advisory Committee on Immunization, Canada
NAME – National Association of Medical Examiners
NAVMED - Naval Medical Command
NAVMEDLOGCOM - Navy Medical Logistics Command
NBC - Nuclear, Biological & Chemical
NCEH - National Center for Environmental Health, CDC
NCID - National Center for Infectious Diseases, CDC
NCR – National Capital Region
NDC - National Drug Code
NDMS- National Disaster Medical System
NEHC - Navy Environmental Health Center
NEO- Non Combatant Evacuation Operations
NEPMU-6 - Navy Environmental & Preventive Medicine Unit-6
NHRC - Naval Health Research Command, San Diego
NIOSH - National Institute for Occupational Safety & Health
NIP - National Immunization Program, CDC
NPS - National Pharmaceutical Stockpile, CDC
NPSB - National Pharmaceutical Stockpile Branch, CDC
NSN - National Stock Number
NYCBOH - New York City Board of Health
OASD(HA) - Office of the Assistant Secretary of Defense for Health Affairs
OASD(PA) - Office of the Assistant Secretary of Defense for Public Affairs
OCONUS - Outside the Contiguous United States
OEP - Office of Emergency Preparedness, DHHS
OHS - Office of Health & Safety, CDC
OGC - Office of General Council (either CDC or DoD)
OPCON – Under Operational Control
OSHA – Occupational Safety and Health Administration
OTSG - Office of the Surgeon General, US Army
PACOM - Pacific Command
PAG – Public Affairs Guidance
PAHO- Pan American Health Organization
PAO – Public Affairs Officers
PAPR – Powered Air Purifying Respirations
PAR - Population at Risk

DoD Smallpox Response Plan

PCR- Polymerase Chain Reaction(Laboratory test method)
PDF - Portable document format
PFU - Pock-forming units
PHA- Public Health Advisor
PHPPO- Public Health Practice Program Officer, CDC
PHS- Public Health Service
PI- Principal Investigator/Product Insert(Package insert)
PM- Preventive Medicine
PPE – Personal Protective Equipment\
ppm – parts per million
PV- Prime Vendor
PAHO - Pan-American Health Organization
PAO - Public Affairs Office or Officers
PCR – Polymerase Chain Reaction (laboratory test method)
PHA - Public Health Advisor
PHPPO - Public Health Practice Program Office, CDC
PHS - Public Health Service
PI - Principal investigator, product insert (package insert)
PM - Preventive Medicine
PPE – Personal Protective Equipment
PV – Prime Vendor
R-type Facility - Residential mode of housing for surveillance of vaccinated contacts of smallpox cases
RC - Reserve Component
ROM – Restriction of Movement
RUC – Reporting Unit Codes
RMW - Regulated Medical Waste
RRAT - Rapid Response & Advanced Technology Laboratory, CDC
SACEUR- Supreme Allied Commander- Europe
SAMS - Shipboard Automated Medical System
SHEA – Society of Healthcare Epidemiologists of America
SIR - Serious Incident Report
SMART - Special Medical Augmentation Response Team, US Army
SOFA - Status Of Forces Agreement
SRT - Smallpox Response Teams
TAML - Theater Army Medical Laboratory
TEU - Technical Escort Unit
T-TEAMS – Treatment Teams
TYCOM – Type Commander (Naval)
Type C Facility - (C for confirmed) Mode of shelter and care for people diagnosed with smallpox
Type R Facility - Residential mode of housing for surveillance of vaccinated contacts of smallpox cases
Type X Facility - (X for Uncertain) Mode of shelter for surveillance of contacts of smallpox cases with fever but without signs and symptoms diagnostic of smallpox

DoD Smallpox Response Plan

UI - Unit of Issue
UIC - Unit Identification Code
UPS - United Parcel Service
URL - Universal Resource Locator
USAMMA - United States Army Medical Materiel Agency
USAMMDA - United States Army Medical Materiel Development Activity
USACHPPM - United States Army Center for Health Promotion & Preventive Medicine
USAMRIID - United States Army Medical Research Institute of Infectious Diseases
USAMRMC – United States Army Medical Research and Materiel Command
USC - United States Code
USDA – United States Department of Agriculture
USPS - United States Postal Service
USUHS - Uniformed Services University of the Health Sciences
UV – Ultraviolet
VAERS - Vaccine Adverse Event Reporting System
VEHB - Viral Exanthems & Herpesvirus Branch, CDC
VIG - Vaccinia Immune Globulin
VHC – Vaccine Healthcare Center
WMD - Weapons of Mass Destruction
WHO - World Health Organization
WRAMC - Walter Reed Army Medical Center
X-type Facility - (X for Uncertain) Mode of shelter for surveillance of contacts of smallpox cases with fever but without signs and symptoms diagnostic of smallpox

DoD Smallpox Response Plan

APPENDIX J-2

URLs for CDC Smallpox Response Plan Document. <http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/index.asp>

	Source of Exposure		
Docu- ment	Title / Subject	PDF URL	HTML URL
	Executive Summary plus parts II through VI	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/FrontPgs/Sections-i-iv.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/FrontPgs/Sections-i-iv.doc
CDC Guide A	Surveillance, Contact Tracing, and Epidemiological Investigation	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a.doc
	Smallpox Case Investigation		
Form 1A	Page 1 of 2	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-1a-pg1.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-1a-pg1.ppt
Form 1A	Page 2 of 2	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-1a-pg2.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-1a-pg2.ppt
Form 1B	Page 1 of 2	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-1b-pg1.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-1b-pg1.ppt
Form 1B	Page 2 of 2	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-1b-pg2.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-1b-pg2.ppt
	Contact Tracing		
Form 2	Interviewer Checklist / Contact Information	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2.doc
Form 2a	Case Travel / Activity Calendar	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2a.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2a.doc
Form 2b	Interviewer Contact / Site Summary Worksheet	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2b.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2c.doc
Form 2c	Contact Transportation	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2c.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2c.doc
Form 2d	Out of Area Travel Log	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2d.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-2d.xls

DoD Smallpox Response Plan

Form 4	Source of Exposure	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-4.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-4-now-3.doc
Form 6	Daily Case Status Tracking	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-6.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-6.xls
Form 7	Daily Case Status Tracking	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-7.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-7.doc
Form 8	Contact Interview	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-8.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-8.doc
Form 9	Contact Vaccination Referral	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-9.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-9.doc
Form 10	Individual Contact Surveillance	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-10.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-10.doc
Form 11	Contact Tracking (Daily Record Master form)	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-11.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/guideA/guide-a-form-11.doc
CDC Guide B	Vaccination Guidelines for State and Local Health Agencies		
	Part 1 (pages 1 to 12)	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideB/guide-b-part1of2.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideB/guide-b-part1of2.doc
	Part 2 (pages 13 to 19)	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideB/guide-b-part2of2.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideB/guide-b-part2of2.doc
CDC Guide C	Isolation and Quarantine Guidelines		
	Part 1 (pages 1 to 18)	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideC/guide-C-pages1-18only.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideC/guide-C-pages1-18only.doc
	Part 2 (pages 1 to 21)	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideC/guide-C-pages19-21only.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideC/guide-C-pages19-21only.doc
CDC Guide D	Specimen Collection and Transport Guidelines	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideD/Guide-D.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideD/Guide-D.doc

DoD Smallpox Response Plan

CDC Guide E	Communications Plans and Activities	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideE/Guide-E.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideE/Guide-E.doc
CDC Guide F	Decontamination Guidelines	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideF/Guide-F.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/GuideF/Guide-F.doc
CDC Annex 1	Annex 1: Overview of Smallpox, Clin. Presentation, Medical Care of Smallpox Patients		
	Part 1 (pages 1 to 9)	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-1-part1of3.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-1-part1of3.doc
	Part 2 (pages 10 to 16)	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-1-part2of3.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-1-part2of3.doc
	Part 3 (pages 17 to 19)	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-1-part3of3.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-1-part3of3.doc
CDC Annex 2	Guidelines for Smallpox Vaccination Clinics	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-2.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-2.doc
CDC Annex 3	Vaccine Adverse Event Reporting	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-3.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-3.doc
CDC Annex 4	Suggested Pre-Event Activities for State & Local Health Authorities	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-4.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-4.doc
	Generalized Vesicular or Pustular Rash Illness Protocol	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-4-rash-color.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-4-rash-color.ppt
CDC Annex 5	Glossary of Abbreviations and Smallpox References	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-5.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-5.doc
CDC Annex 6	Miscellaneous Forms in development	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-6.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-6.doc
CDC Annex 7	Checklists for State/ Local/ CDC Personnel Actions in a Smallpox Emergency	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-7.pdf	http://www.bt.cdc.gov/DocumentsApp/Smallpox/RPG/annex/annex-7.doc

DoD Smallpox Response Plan

APPENDIX J-3

Professional Resources on Smallpox.

Agency for Healthcare Research and Quality Bioterrorism Education Site,
www.bioterrorism.uab.edu/

American College of Physicians and American Society of Internal Medicine (ACCP-ASIM), Bioterrorism Resource Center, www.acponline.org/bioterro/index.html

American Society for Microbiology (ASM), Resources Related to Biological Weapons Control and Bioterrorism Preparedness, www.asmta.org/pcsrc/bioprep.htm

Association for Infection Control and Epidemiology, Inc. (APIC), (202) 789-1890, (202) 789-1890, <http://www.apic.org/bioterror/>, www.apicelearn.org

Centers for Disease Control and Prevention, <http://www.bt.cdc.gov/> or <http://www.cdc.gov/>, (404) 639-3311

Centers for Disease Control and Prevention (CDC). Facts about smallpox.,
www.bt.cdc.gov/DocumentsApp/FactSheet/SmallPox/About.asp

Centers for Disease Control and Prevention (CDC). Frequently asked questions,
www.bt.cdc.gov/DocumentsApp/SmallPox/10242001faqs/10242001SmallpoxFAQs.asp

CDC Responds series: Smallpox: What Every Clinician Should Know,
www.phppo.cdc.gov/phtn/default.asp

CDC Public Health Emergency & Response site, www.bt.cdc.gov,
cdc.gov/ncidod/diseases/bioterr.htm

Department of Defense, <http://www.defenselink.mil/>, (703) 697-5737

DoD; Improving Local And State Agency Response To Terrorist Incidents Involving Biological Weapons,
http://www2.sbccom.army.mil/hld/downloads/bwirp/bwirp_interim_planning_guide.pdf

Department of Health and Human Services, <http://www.dhhs.gov/>, 1-877-696-6775

Domestic Preparedness Helpline: 1-800-368-6498
Domestic Preparedness Website: <http://www.nbc-prepare.org/>

Environmental Protection Agency, <http://www.epa.gov/>, (202) 260-2090

Federal Bureau of Investigation, <http://www.fbi.gov/>, (202) 324-3000

DoD Smallpox Response Plan

Federal Emergency Management Agency, <http://www.fema.gov/>, (202) 646-4600

Infectious Disease Society of America (IDSA), Bioterrorism Preparedness (includes links to useful articles), www.idsociety.org/PA/PS&P/BT_Preparedness_10-2-01.htm

Johns Hopkins Center for Civilian Biodefense Studies, <http://www.hopkins-biodefense.org/pages/agents/agentsmallpox.html>

National Domestic Preparedness Office, <http://www.ndpo.gov/>, (202) 324-9026

Society for Healthcare Epidemiology of America, Inc., <http://www.shea-online.org/BTprep.html>

University of Alabama – Birmingham, Emerging Infections and Potential Bioterrorist Agents, www.bioterrorism.uab.edu/

UCLA Department of Epidemiology, www.ph.ucla.edu/epi/bioter/bioterrorism.html

U.S. Army Medical Research Institute of Infectious Diseases (USAMRIID), www.usamriid.army.mil

USAMRIID's Medical Management of Biological Casualties Handbook, www.usamriid.army.mil/education/bluebook.html

US Army Medical NBC Information Server, www.nbc-med.org/others/Default.html

US Army NBC Information Server, www.nbc-med.org/others/Default.html

DoD Smallpox Response Plan

APPENDIX J-4

Reference Publications on Smallpox.

Advisory Committee on Immunization Practices. Vaccinia (smallpox) vaccine. *MMWR* 2001;50(RR-10):1-25. <http://www.cdc.gov/mmwr/PDF/rr/rr5010.pdf>. See Appendix J-7.

Advisory Committee on Immunization Practices. Draft supplemental recommendations on smallpox (vaccinia) vaccine. 2002 June 20.
www.cdc.gov/nip/smallpox/supp_recs.htm

Atkinson W, Wolfe C, Humiston S, Nelson R, ed. Chapter 18, Smallpox. In: *Epidemiology & Prevention of Vaccine-Preventable Diseases*, 7th ed. Atlanta: Centers for Disease Control & Prevention, Apr 2002.
<http://www.cdc.gov/nip/publications/pink/#download>.

Barbera J, Macintyre A, Gostin L, Inglesby T, O'Toole T, DeAtley C, Tonat K, Layton M. Large-scale quarantine following biological terrorism in the United States: Scientific examination, logistic and legal limits, and possible consequences. *JAMA* 2001;286:2711-2717. <http://jama.ama-assn.org/issues/v286n21/rpdf/jsc10254.pdf>

Breman JG, Henderson DA. Diagnosis and management of smallpox. *N Engl J Med* 2002; 346:1300-1308. <http://content.nejm.org/cgi/reprint/346/17/1300.pdf>.

Canadian National Advisory Committee on Immunisation. Statement on smallpox vaccination. *Can Comm Dis Rep* 2002;28(ACS-1):1-12. <http://www.hc-sc.gc.ca/pphb-dgspsp/publicat/ccdr-rmtc/02pdf/acs28-1.pdf>.

Coates JB Jr., Hoff EC. *Medical Department, United States Army, in World War II—Preventive Medicine in World War II, Volume III: Personal Health Measures and Immunization*. Washington, DC: Department of the Army, 1955, pages 280-287, 351-352.

Coates JB Jr., Hoff EC. *Medical Department, United States Army, in World War II—Preventive Medicine in World War II, Volume VII: Communicable Diseases—Arthropodborne Diseases Other Than Malaria*. Washington, DC: Department of the Army, 1986, pages 17-18.

Fenner F, Henderson DA, Arita I, Jezek Z, Ladnyi ID. *Smallpox and Its Eradication*. Geneva: World Health Organization, 1988.
<http://www.who.int/emc/diseases/smallpox/Smallpoxeradication.html>.

Frey SE, Newman FK, Cruz J, Shelton WB, Tennant JM, Polach T, Rothman AL, Kennedy JS, Wolff M, Belshe RB, Ennis FA. Dose-related effects of smallpox vaccine. *N Engl J Med* 2002;346:1275-1280. <http://content.nejm.org/cgi/reprint/346/17/1275.pdf>.

DoD Smallpox Response Plan

Frey SE, Couch RB, Tacket CO, Treanor JJ, Wolff M, Newman FK, Atmar RL, Edelman R, Nolan CM, Belshe RB, National Institute of Allergy and Infectious Diseases Smallpox Vaccine Study Group. Clinical responses to undiluted and diluted smallpox vaccine. *N Engl J Med* 2002;346:1265-1274. <http://content.nejm.org/cgi/reprint/346/17/1265.pdf>.

Gani R, Leach S. Transmission potential of smallpox in contemporary situations. *Nature* 2001;414:748-751; errata 415:1056.

Haim M, Gdalevich M, Mimouni D, Askenazi I, Shemer J. Adverse reactions to smallpox vaccine: The Israel Defense Force experience, 1991 to 1996: A comparison with previous surveys. *Milit Med* 2000;165:287-289.

Henderson DA, Inglesby TV, Bartlett JG, Ascher MS, Eitzen E, Jahrling PB, Hauer J, Layton M, McDade J, Osterholm MT, O'Toole T, Parker G, Perl T, Russell PK, Tonat K, Working Group on Civilian Biodefense. Smallpox as a biological weapon: Medical and public health management. *JAMA* 1999;281:2127-2137. <http://jama.ama-assn.org/issues/v281n22/ffull/jst90000.html>.

Kaplan EH, Craft DL, Wein LM. Emergency response to a smallpox attack: The case for mass vaccination. *Proc Natl Acad Sci USA* 2002;99:10935-10940. <http://www.pnas.org/cgi/content/abstract/162282799v1>.

Lada J, Hoff EC. *Medical Department, United States Army, in World War II—Preventive Medicine in World War II, Volume VIII: Civil Affairs/Military Government, Public Health Activities*. Washington, DC: Department of the Army, 1976.

Lane JM, Ruben FL, Neff JM, Millar JD. Complications of smallpox vaccination, 1968: National surveillance in the United States. *N Engl J Med* 1969;281:1201-1208.

Lane JM, Ruben FL, Neff JM, Millar JD. Complications of smallpox vaccination, 1968: Results of ten statewide surveys. *J Infect Dis* 1970;122:303-309.

Lane JM, Millar JD, Neff JM. Smallpox and smallpox vaccination policy. *Annu Rev Med* 1971;22:251-272.

Mack TM. Smallpox in Europe, 1950-1971. *J Infect Dis* 1972;125:161-169.

McClain DJ, Harrison S, Yeager CL, Cruz J, Ennis FA, Gibbs P, Wright MS, Summers PL, Arthur JD, Graham JA. Immunologic responses to vaccinia vaccines administered by different parenteral routes. *J Infect Dis* 1997;175:756-763. http://www.journals.uchicago.edu/JID/journal/issues/v175n4/_756/_756.web.pdf.

Meltzer MI, Damon I, LeDuc JW, Millar JD. Modeling potential responses to smallpox as a bioterrorist weapon. *Emerg Infect Dis* 2001;7:959-969. <http://www.cdc.gov/ncidod/EID/vol7no6/meltzer.htm>

DoD Smallpox Response Plan

Neff JM, Lane JM, Pert JH, Moore R, Millar JD, Henderson DA. Complications of smallpox vaccination. I. National survey in the United States, 1963. *N Engl J Med* 1967;276:125-32.

Potter LA. Smallpox. In: Coates JB Jr., Hoff EC. *Medical Department, United States Army, in World War II—Preventive Medicine in World War II, Volume IV: Communicable Diseases Transmitted Chiefly Through Respiratory & Alimentary Tracts*. Washington, DC: Department of the Army, 1958:151-163.

Redfield RR, Wright DC, James WD, Jones TS, Brown C, Burke DS. Disseminated vaccinia in a military recruit with human immunodeficiency virus (HIV) disease. *N Engl J Med* 1987;316:673-676.

Rosenthal SR, Merchlinsky M, Kleppinger C, Goldenthal KL. Developing new smallpox vaccines. *Emerg Infect Dis* 2001;7:920-926.

<http://www.cdc.gov/ncidod/EID/vol7no6/rosenthal.htm>

World Health Organization. Smallpox. *Weekly Epidemiologic Record* 2001;76:337-344. <http://www.who.int/wer/pdf/2001/wer7644.pdf>.

DoD Smallpox Response Plan

APPENDIX J-5

Restriction of Movement as a Tool for the Control of Contagious Disease on the Battlefield.

Adapted from: Joint Venture Oversight Group (a joint US/UK bilateral collaboration), November 2001.

Introduction

1. Military personnel face a serious threat from disease during military operations. Historically, disease, not warfare, was the greatest source of casualties on the battlefield. Unchecked, casualties from disease have the potential to seriously degrade the operational effectiveness of deployed forces or, in the worst case, endanger the achievement of mission goals.

2. Disease in humans originates from some naturally occurring micro-organisms such as bacteria and viruses. Some of these organisms are highly contagious (i.e., have the capacity to spread from person to person). Others are infrequent causes of illness in man in normal conditions (e.g., anthrax), but may be highly contagious when introduced to the environment deliberately (e.g., in a biological weapon, BW). The control of contagious diseases presents particular problems in a military operational setting. Warfare inevitably involves large numbers of personnel working and living closely together for extended periods of time under stressful conditions. In these circumstances, a contagious disease has the potential to spread rapidly whether due to poor public or environmental health and hygiene or as a result of introduction by release from a biological weapon.

Principles of Disease Control

3. Whatever its source, contagious disease on the battlefield must be managed and controlled in order to maintain the operational effectiveness of forces. Modern medical science, public-health practices and good environmental health management provide many effective disease control tools.

4. Preventing, or controlling, the spread of contagious disease is accomplished by rendering those at risk resistant to the disease and limiting their exposure. In general, this is effected by medical intervention, such as immunization, or by restricting contact between healthy individuals and sources of the disease (other individuals, animals, insects etc.).

5. This guide focuses on one tool available to a Commander for the control of contagious disease - Restriction of Movement (ROM). The use of ROM will present him with a number of unique challenges and dilemmas. However, in reading this guide, it is important to bear in mind that contagious disease control relies on the co-ordinated use of a number of techniques.

What is Restriction of Movement (ROM)?

DoD Smallpox Response Plan

6. ROM is a tool for maintaining operational effectiveness in the face of a contagious disease, whether natural or artificial (for example, a biological-weapon attack). It aims to control the spread of the disease by restricting contact between healthy groups of personnel and those who have, or are suspected of having, contracted it. Personnel covered by ROM do not necessarily need to be removed from operations; wherever possible it should be implemented in such a way as to allow them to continue their mission. ROM may also be necessary to reduce the risk that a contagious disease is transferred back to the home base. A separate paper (“Decision making tool for the evacuation of military casualties following suspect BW exposure”) provides guidance on the evacuation of casualties following a suspected or confirmed attack using BW.

7. A note on terminology: The terms ‘quarantine’ and ‘isolation’ are often used in the context of preventing contact between healthy populations and those either infected, or suspected of being infected, with a contagious disease. Quarantine involves the detention of an individual, or group, who is suspected of having been exposed to a contagious disease, until it is deemed that they have escaped infection. Isolation is the separation of an infected individual from a healthy population. Both rely on restricting the movement of individuals to some degree. During military operations where personnel have contracted, or are suspected of having been exposed to, a contagious disease, a Commander may need to consider using either, or both. Throughout this guide we will therefore use the more universal term, restriction of movement, or ROM.

Overview of Approach to Disease Control

8. Before considering ROM in detail, it is necessary to understand the overall approach to disease control in a theatre of operations (see figure). Before deployment, general Nuclear, Biological & Chemical (NBC) and medical **intelligence** and **reconnaissance** is required in order to assess threats to health of the deploying force from disease. This information forms an integral part of the intelligence preparation of the battlespace and will be incorporated into the operational estimate. It provides a baseline against which to assess any subsequent disease outbreaks. This may be particularly important in assessing whether an outbreak is naturally occurring rather than the result of a biological attack. On the basis of the resulting **health risk assessment**, medical staff will advise the Commander on the **force health protection** options available to him. The aim should be to reduce the risk of disease exposure to as low as reasonably practical. Typical steps that the Commander will need to consider prior to, and during, deployment include:

- Appropriate theatre surveillance measures to ensure early detection of potential exposures to disease. This includes pre-deployment surveillance.
- Measures to avoid, or minimize, exposure to potential sources of disease. In many cases, operational considerations will make this difficult, in which case the steps

DoD Smallpox Response Plan

below should be taken in order to minimize the risks.

- Ensuring that all personnel receive appropriate pre-deployment health advice and training concerning the in-theatre disease risks and the measures required to minimize the risks of exposure.
- Ensuring that personnel are offered appropriate medical countermeasures (for example, immunization) prior to deployment and that adequate supplies are available for use in-theatre as required.

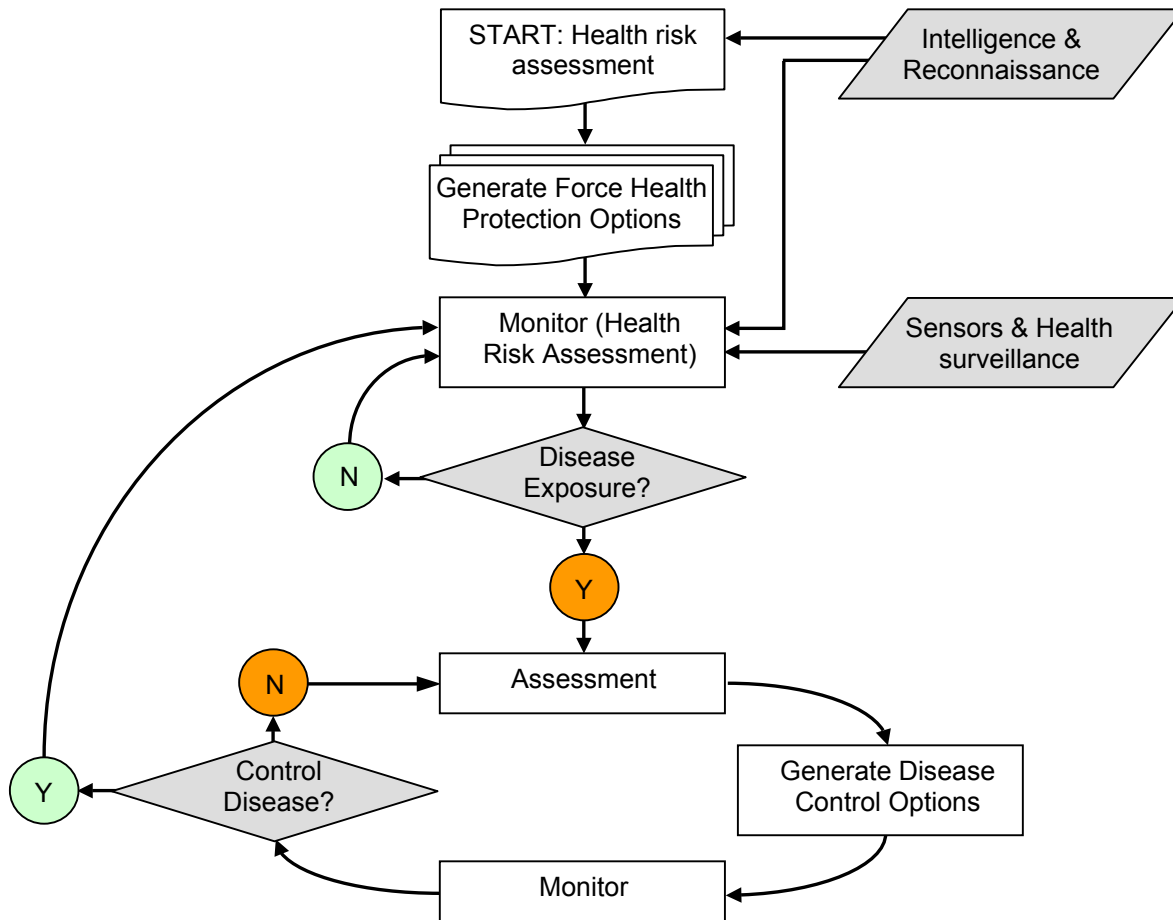


Figure: Overall approach to in-theatre disease control.

9. During deployment, the risks to the health of personnel are continuously **monitored** to ensure force health protection. Intelligence and reconnaissance continue to play an important role, and medical staff will provide the Commander with a health risk assessment. The first indication that personnel have been exposed to disease will be from one of two sources:

- Health surveillance and morbidity analysis picking up unusually high numbers, or distributions of illness amongst personnel, local civilians or others in theatre (e.g.

DoD Smallpox Response Plan

NGOs).

- Biological Warfare (BW) sensor alarms.

10. It may take some time to establish whether personnel have been exposed to a disease-causing agent, what that agent is and whether it is contagious. Until a definitive diagnosis or identification can be made, the Commander should assume that personnel have been exposed to, and infected by, a contagious disease and take all possible steps, balanced against wider operational imperatives, to limit the spread of that disease. It may, in the initial stages, also be difficult to distinguish between a naturally occurring disease event and one as the result of a BW attack. All disease events will therefore require careful investigation involving a variety of medical and NBC specialists.

11. Based on the evidence available and medical advice, the Commander must, as a matter of priority, **assess** the likely extent of exposure and infection and then in close consultation with the medical staff, taking the operational situation into account, generate **options** for controlling the disease event. These might include:

- Removing individuals showing disease symptoms for treatment as soon as possible.
- Instructing personnel within affected areas (or zones) on steps to minimize disease spread. Depending on the circumstances these might include decontamination procedures and environmental health controls such as enhanced monitoring of food and water supplies, more stringent hygiene measures, removing personnel from possible disease sources etc.
- Distributing, and instructing personnel to take, available medical countermeasures.
- Enhancing health surveillance of personnel within the suspected areas of exposure.
- Taking steps to minimize contact between personnel in the affected and non-affected areas by the use of ROM (see below).

12. A period of continuous **monitoring** and **assessment** follows during which the success of **disease control measures** are monitored and progressively refined or modified. A high priority must be to obtain a definitive diagnosis or identification of the disease-causing agent so that the Commander and medical staff are able to tailor control measures to that particular pathogen and its mode of transmission. In particular, ROM will not be necessary for diseases that are not contagious, and may not be necessary for diseases against which physical protection (such as oro-nasal masks), or available medical countermeasures, provide an adequate level of protection.

Implementing Restriction of Movement (ROM)

DoD Smallpox Response Plan

13. A Commander will need to consider ROM following evidence that personnel have been exposed to disease. As described at Appendix J-5, paragraph 9, this evidence could come from BW sensors or health surveillance. Plans of action for these two eventualities are given at addendum A and addendum B respectively. Further considerations in implementing ROM are below.

General Operational Considerations

14. If the use of ROM is contemplated at any stage during an operation, it must be with the full knowledge that the impact on operational effectiveness is likely to be significant. The only stage of an operation when ROM is unlikely to play a significant deleterious role is during the close of an operation when personnel are being returned home. Here, ROM would be aimed not at preserving the fighting integrity of the force but, rather, reducing the risk of introducing contagious disease into the home base.

15. The implementation of ROM will restrict the ability of the Commander to use affected force elements and the fighting effectiveness of those units. There is also the danger that a perception on the part of an aggressor that ROM is likely to be used in response to a BW attack may make the use (or threatened use) of biological agents more attractive. In practice, the operational impact of disease control measures will need to be balanced against the potential consequences of the spread of a contagious disease. Operational pressures may dictate a policy that accepts the limited spread of a contagious disease because the implementation of ROM would result in the loss of the military objective. Special attention will need to be paid to highly mobile battlefield assets such as logistical units and Special Forces since these could inadvertently spread a contagious disease widely across the force structure or back to the home base.

Scale of Restriction of Movement (ROM)

16. The scale of ROM will depend on the precise set of circumstances surrounding any decision to implement it. It is most likely that ROM will be based around a particular geographic area or group of personnel. Personnel who may have been exposed to a BW agent should be instructed to carry out standard BW decontamination procedures. Most BW agents decay quickly when exposed to sunlight and drying, so contamination of the environment is unlikely to pose a significant hazard for an extended period (days or weeks) following an attack. Definition of ROM by geographic area is therefore unlikely to be useful beyond defining those force elements that may have been exposed to an agent. The general guideline is that, wherever possible, ROM should cover autonomous force elements so that they are able to continue their operational tasks while minimizing their contact with other unaffected units. This preserves the integrity of the chain of command, which will be critical both for ensuring that ROM is properly enforced and communication (see below).

17. One priority, whether or not ROM is used, is to ensure that any contagious disease is not spread back to the home base. As a minimum, it will be necessary to ensure that those returning home from a theatre of operation where a contagious disease is confirmed, or suspected, are the subjects of rigorous follow-up health surveillance. Special procedures

DoD Smallpox Response Plan

may be need to be implemented for personnel and assets that cycle in and out of theatre with high frequencies, for example strategic lift aircrew.

Treatment of Civilians

18. Civilians play an increasing role in the support of military operations. It is therefore very likely that the use of ROM will also affect civilians. DoD civilian workers and contractors likely will be treated in the same fashion as military personnel. However, where ROM affects other civilians (e.g. those of a host nation) its imposition and enforcement will be particularly problematic – for example, it may be necessary to segregate forces from the local populace. Close liaison with host nation authorities will be necessary in order to implement ROM successfully.

Duration of ROM

19. Once the decision to implement ROM has been taken, the criteria under which it will be lifted should also be identified. These 'exit criteria' will need to be based on medical advice and will primarily depend on the biological agent involved. The duration of ROM might be tailored to the projected incubation period of the disease following infection. As a minimum, this period should elapse without cases of disease occurring amongst personnel before ROM can be lifted. However, caution is needed since projections about the incubation time of contagious diseases are often imprecise and based on observations of naturally occurring forms of the disease. They may also be modified when biological agents are used as BW weapons or when personnel have used medical countermeasures. Once ROM is lifted, additional health surveillance for personnel should continue for an extended period to ensure that any subsequent outbreak, or re-emergence, of disease is quickly detected.

Morale & Communication

20. The use of ROM is likely to have far reaching psychological consequences on the personnel directly affected, the local civilian population and the perceptions of those at home. The successful prosecution of the operation may depend on dealing with the very natural feelings of fear, confusion, panic, indignation and anger likely to be displayed by different groups.

- Personnel affected by ROM. The imposition of ROM is likely to have a severe psychological impact on those groups who are directly affected, particularly if some of their number begin to fall ill. As suggested above, ROM should, wherever possible, be based around autonomous force elements that can continue some, or all, of their operational activities. This will ensure that personnel are focussed on continuing to perform their operational tasks rather than the implications of ROM. Clear communication is key and this approach also preserves the chain of command which has a crucial role to play in this respect. A decision to withhold information in order to reduce anxiety, although well intentioned, is likely to be counterproductive since rumour and confusion will spread quickly. Clear, concise and realistic messages should therefore be conveyed by a skilled health risk communicator as

DoD Smallpox Response Plan

soon as possible. These should cover:

- Why ROM has been implemented;
- The threat or risk faced by personnel – factual, realistic assessments of the risks faced by personnel (including any details of the agents that might be involved);
- What precisely ROM involves – clear explanation of how it will affect personnel and their operational activities;
- Other measures being taken – including the delivery of medical assistance (medicines and treatment).
- When ROM will be lifted.
- The Main Force. Knowledge that ROM has been implemented on a component of the force is likely to be damaging. Again, clear and timely information will be vital and should be along the same lines as that for those directly affected.
- Local Civilian Population. Knowledge that a contagious disease is a problem amongst a locally deployed force has the potential to cause panic and disorder. Extremely close liaison with host nation civil and military authorities will be required to ensure that the situation is contained. All communication with the local civilian population should employ risk-communication principles.
- The Home Base. The media, perhaps as the result of a BW attack, will seize on news that personnel have been exposed to disease. Outrage, frustration, demands for action (and retaliation in the case of a BW attack), perhaps even calls for withdrawal will quickly follow. Many will fear the disease being spread back home. Relatives will be particularly anxious for news and information that the movements of apparently healthy personnel are being deliberately restricted, perhaps placing them at greater risk, will not be well received. The news media will need careful and professional handling. Commanders should take advice on this as soon as a decision to implement ROM is taken. Key messages will need to cover:
 - Why ROM is necessary - a broad explanation of the threat/risks faced by personnel;
 - The aim of ROM – protecting personnel and ensuring the success of the operation;
 - Ensuring that any casualties get the best possible treatment.
 - Ending ROM.

Summary

DoD Smallpox Response Plan

- The basic principles of the control of contagious disease on the battlefield are broadly the same whether the disease is naturally occurring or artificially introduced.
- ROM is one tool that may be considered by the Commander during an operation in order to control the spread of an infection amongst personnel. It should be used in concert with other measures and its use needs to be carefully balanced against its operational impact.
- Where ROM is implemented, it should, as far as possible, involve autonomous units that preserve the chain of command. Clear, precise and timely communication to personnel affected is critical.

Useful References

Joint NBC Defence Doctrine	JWP 3-61
Joint Medical Doctrine	JWP 4-03
Joint Doctrine for Operations in NBC Environments	JP 3-11

DoD Smallpox Response Plan

ADDENDUM A: Evidence from BW Sensor Alarms

In this case, the priority will be to establish whether a biological weapons attack has taken place but, until confirmed otherwise, the Commander should assume that personnel have been exposed to a contagious disease. Action should be taken as follows:

- STEP 1: Carry out standard BW defence procedures. Establish the zone(s) within which it is most likely that personnel have been exposed to the BW agent (or, alternatively, where exposure is unlikely to have taken place).
- STEP 2: With medical staff, immediately review force health protection options with the assumption that the disease is contagious. See Appendix J-5, paragraph 11.
- STEP 3: Identify the agent used. This may be accomplished either by direct detection by BW sensors or may require the analysis of samples from the environment, or personnel, in a laboratory.
- STEP 4: Once the agent is identified, seek medical advice and review and refine the disease control measures taken at STEP 2, including the use of ROM. For all contagious disease there is a delay between exposure and the point at which infected individuals become contagious (i.e. are capable of passing the disease to others). This period depends on the disease, but ranges from one to several days. During this period personnel who have been exposed may have dispersed to different locations and may be difficult to track. A Commander therefore has up to 24 hours following initial detection in order to seek advice, reach a decision and, if necessary, prepare for the introduction of ROM, but should aim to do so as soon as possible. This process should include the generation of criteria for lifting ROM (see Appendix J-5, paragraph 19). These exit criteria will be based on the typical incubation period following exposure for the disease caused by the agent. For example, it may be possible to consider lifting ROM if no cases occur within several days of initial detection.
- STEP 5. Implement ROM (if required) and other disease control measures. In the initial instance, ROM is likely to be based on the zones identified at STEP1, but needs to take into account operational practicalities. For example, where only part of a unit has been exposed to a contagious agent, it may make more sense to apply ROM to the whole unit. Units within this area can continue to operate, but contact with other elements of the force should be limited as far as possible. However, the operational situation will determine whether unexposed personnel should be deployed in a ROM area.
- STEP 6. Enhance health surveillance and monitor success of control measures. This continues until the exit criteria identified at STEP 3 are satisfied (in which case

DoD Smallpox Response Plan

ROM can be lifted) or the first cases of disease amongst personnel are identified (proceed to STEP 1 in Addendum B).

ADDENDUM B: Evidence from Health Surveillance

In this case, the fact that personnel have been infected by disease is likely to become apparent over a period of days, even weeks. Even where the introduction of disease takes place as the result of a single event (e.g. the use of a single biological weapon) as well as being spread over a long period of time, cases may have a large geographic distribution caused by the movement of personnel and secondary spread of infection. A decision to implement ROM will be more difficult in these circumstances because the seriousness and extent of any disease outbreak may not be clear. If health surveillance indicates that personnel may have been infected, action should be as follows:

STEP 1. Prompt isolation and treatment of those with the symptoms of disease. Consideration will need to be given to how medical support will be delivered to the sick. It may be feasible to remove casualties, with appropriate precautions, to field hospitals, but where large numbers of personnel are affected this may not be possible. In this case medical facilities may need to be deployed into ROM areas.

STEP 2. With medical staff, immediately review force health protection options. See Appendix J-5, paragraph 11.

STEP 3. Definitive identification of the agent responsible. This will be arrived at based on medical diagnosis of the symptoms of infected individuals and laboratory analysis of patient samples. This may require the evacuation of a single case, under rigorously controlled conditions, back to the UK and/or US.

STEP 4. Once the agent is identified, seek medical advice and review and refine the disease control measures taken at STEP 2, including the use of ROM. If the agent does not cause a contagious disease, ROM is not required. If, however, the agent is confirmed as contagious the introduction of ROM will need to be considered (if not already implemented in STEP 2) to limit any potential spread amongst healthy personnel. In this case, the imperative will be to make an early decision concerning whether or not to use ROM, since the disease is already spreading amongst personnel. In the case of a highly contagious agent, delay may make the situation far worse than it may otherwise have been. Criteria for the lifting of ROM will also need to be generated (see Appendix J-5, paragraph 19).

STEP 5. Implement ROM (if required) in concert with other control measures. Here ROM is likely to be based on individuals or groups who have come into close contact with confirmed cases. As the disease runs its course, the groups affected by ROM may need to be expanded, or reduced. The operational impact of ROM can be minimized by basing it around autonomous force elements that are able to sustain their military functions.

STEP 6. Enhance health surveillance and monitor success of control measures.

DoD Smallpox Response Plan

STEP 7. Based on exit criteria, lift ROM. This may take place progressively as units, or force elements are confirmed disease free.

DoD Smallpox Response Plan

APPENDIX J-6

Considerations In Air-Evacuation Of A Smallpox Patient from Overseas

Adapted from: Decision Making Tool For Evacuation Of Military Casualties Following Suspect BW Exposure, Joint Venture Oversight Group (a joint US/UK bilateral collaboration), November 2001.

1. Introduction. Patients with an infection caused by a biological warfare (BW) attack can be medically managed in the same manner as those with a disease caused by natural exposure to the same agent. The route of acquisition of the infection does not bear any relationship to the risk of secondary transmission. However, a suspected BW attack on any military deployed operation would have significant political, operational and medical implications. Medical factors will include the need for:

a. Rapid and accurate identification of the agent in order to ensure appropriate prophylaxis of non-exposed personnel and treatment of those exposed.

b. Provision of adequate medical resources in theatre. This will include diagnosis, treatment, specialist nursing, infection control and the ability, if required, to hold BW casualties.

c. Confirmation of the risk of secondary infection.

2. Aim. The aim of this paper is to identify the actions that need to be taken to prevent the spread of a contagious disease from a deployed theatre of operations to the home base from the aeromedical evacuation of casualties.

3. Scope. This paper is concerned only with medical issues. It does not address the need or provision for forensic sampling. Detailed guidance on Restriction of Movement (ROM) is addressed in Appendix 7.

4. Attack Indicators. The following are indicators that BW agents have been used:

a. Intelligence.

b. Activation of detectors.

c. Medical surveillance. For example, the sudden onset of illness with large numbers of personnel military or civilians or animals, unusual distribution or types of illness in the theatre of operations (e.g., localized or widespread, multiple foci).

5. Restriction of Movement (ROM). In the event of a suspected BW incident, the theatre commander may impose ROM along with other disease-control measures. The presence of positive intelligence (i.e., both the possession of BW agents by a nation of concern and an indication of intention to use) together with the occurrence of 4b or 4c above will almost certainly be treated as a BW attack until proved otherwise. Where a contagious disease is

DoD Smallpox Response Plan

suspected it will, at a minimum, be necessary to ensure that those returning home from a theatre of operations (including casualties) are the subjects of rigorous follow-up health surveillance. As a general rule, the movement of personnel and casualties back to the home base should be minimized until any disease is definitively diagnosed. Where ROM is implemented, a decision to evacuate casualties from the theatre of operation will need to be taken in consultation with the theatre commander and operational HQ. Any decision to evacuate casualties needs to be balanced against the risk of spreading a contagious disease to the home base and the needs of the casualties. ROM may be applied to the movement of casualties.

6. Actions. A simple decision-making tool covering the steps that need to be taken in order to avoid the inadvertent spread a contagious disease back to the home base is attached at Addendum A, Evidence from BW Sensor Alarms (just ahead of this appendix). This tool will be implemented under ROM or where there is suspicion of a contagious disease affecting personnel in-theatre. Up to three steps may be required to accurately diagnose a disease:

Step 1: Diagnosis in theatre. Ideally, disease diagnosis will be made in theatre. This might be based on clinical observations of symptomatic cases or the analysis of suitable samples from symptomatic patients using in-theatre analysis capabilities.

Step 2: Returning Specimens to the UK/US. If diagnosis cannot be made within the theatre of operations, specimens must be sent out of theatre. Take samples only from patients who are symptomatic. There is no benefit in taking samples from healthy individuals who may have been exposed to a contagious agent. Consider sample collection from corpses. Veterinary and/or environmental-health assistance may be required to collect samples from dead animals.

Step 3: Evacuation of an Index Case to the UK/US.

a. The initial clinical picture of natural and weaponized agents is often non-specific and the analysis of samples may not result in a definitive diagnosis. A patient may therefore need to be moved to a reference facility for confirmation of diagnosis and guidance on treatment. In order to facilitate the diagnosis process, it may be necessary to evacuate an index case along with the transmission of samples at Step 2.

b. Evacuation of an Index Case—Mechanism. The patient should be transported in a patient Air Transportable Isolator (ATI) chamber because of:

- (1) Risk of airborne transmission.
- (2) Risk of contamination of the airframe.

c. Selection of Index Patient. Senior medical officer in charge of the patient, following consultation with the theatre medical commander, will make the choice of individual. In general, the patient should be representative of the clinical syndrome involved, early in the natural history of the illness and physically accessible to the ATI team. Ideally the patient

DoD Smallpox Response Plan

should be self-caring and unlikely to deteriorate in the time it takes to reach the reference facility. The evacuation of an index case will comply, whenever possible, with IATA and WHO Regulations.

Step 4: Risk Assessment. The implementation of the above steps should safeguard the home base against inadvertent spread of contagious disease from the aeromedical evacuation of casualties. Once an accurate diagnosis has been made, the theatre medical Commander and his staff will need to:

a. Identify the health protection options and medical resources required, including the most appropriate prophylaxis and treatments for any personnel who may have been exposed and/or infected with a contagious disease. This process will assist the commander in deciding what force health protection measures, including the use of ROM, need be implemented in-theatre.

b. Carry out an assessment of the risks of evacuating casualties, some of who may be contagious, back to the home base. It may be possible to evacuate casualties with appropriate precautions in place, however where it is judged that the risks of doing this are too great treatment will need to be delivered in theatre.

7. Personnel & Casualties Already Evacuated. It is possible that Steps 1-4 above will take several days to effect. By the time a definitive diagnosis is obtained, some casualties may already have been evacuated to the home base. Where a contagious disease is confirmed, evacuated casualties and contacts will need to be the subject of rigorous medical surveillance.

DoD Smallpox Response Plan

APPENDIX J-7

Advisory Committee on Immunization Practices (ACIP) Guidelines:

Part 1, Summary of October 2002 ACIP Smallpox Vaccination Recommendations.

Approved by ACIP on October 18, 2002

Now under consideration by CDC and DHHS

<http://www.bt.cdc.gov/agent/smallpox/vaccination/acip-recs-oct2002.asp>

Part 2, Draft Supplemental Recommendation of the ACIP, Use of Smallpox (Vaccinia) Vaccine, June 2002.

Draft approved by ACIP on June 20, 2002

Now under consideration by CDC and DHHS

<http://www.bt.cdc.gov/agent/smallpox/vaccination/acip-guidelines.asp>

Part 3, ACIP Recommendations for Use of Smallpox Vaccine, June 2001

Advisory Committee on Immunization Practices (ACIP).

Vaccinia (smallpox) vaccine.

MMWR—Morbidity & Mortality Weekly Report 2001;50(RR-10)(June 22):1-25.

<http://www.cdc.gov/mmwr/PDF/rr/rr5010.pdf>.

The documents appear on following pages.