

**SMALLPOX AND SMALLPOX VACCINE
LITERATURE REVIEW – Jan 2012**
(New entries are shown in bold)

SMALLPOX VACCINE ADVERSE EVENTS

U.S. Department of Defense (DoD) Smallpox Vaccine Program

1. Aldis JW, Kortepeter MG, Rusnak JM. Reaction after smallpox vaccination. *Am Fam Physician*. Jul 1 2006;74(1):145-147. <http://www.aafp.org/afp/20060701/photo.html>
2. Arness MK, Eckart RE, Love SS, et al. Myocarditis following smallpox vaccination. *Am J Epi*. 2004;160(70):642-651.
<http://www.vaccines.mil/documents/library/Myopericarditispostsmallpox.pdf>
3. Beachkofsky TM, Carrizales SC, Bidinger JJ, Hrncir DE, Whittemore DE, Hivnor CM. *Adverse events following smallpox vaccination with ACAM2000 in a military population*. Arch Dermatol. 2010 Jun;146(6):656-61.
<http://archderm.ama-assn.org/cgi/reprint/146/6/656>
4. Bessinger GT, Smith SB, Olivere JW, James BL. Benign hypersensitivity reactions to smallpox vaccine. *Int J Dermatol*. May 2007;46(5):460-465.
<http://www.ncbi.nlm.nih.gov/pubmed/17472671?dopt=Citation>
5. Bryant-Genevier M, O'Connell K, Ball R, Braun MM, McMahon A. Passive surveillance for generalized vaccinia in the United States using the Vaccine Adverse Event Reporting System (VAERS). *Vaccine*. Apr 24 2006;24(17):3632-3635.
<http://www.ncbi.nlm.nih.gov/pubmed/16517033?dopt=Citation>
6. CDC. Progressive vaccinia in a military smallpox vaccinee—United States, 2009. *MMWR*. 2009;58(19):532-6. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5819a5.htm>
7. Chapman LE, Iskander JK, Chen RT, et al. A process for sentinel case review to assess causal relationships between smallpox vaccination and adverse outcomes, 2003-2004. *Clin Inf Dis*. 2008;46(Suppl 3):S271-S293.
<http://www.ncbi.nlm.nih.gov/pubmed/18284368?dopt=citation>
8. Cohen JI, Hohman P, Fulton R, Turk SP, Qin J, Thatcher K, Hornung RL. Kinetics of serum cytokines after primary or repeat vaccination with the smallpox vaccine. *J Infect Dis*. 2010 Apr 15;201(8):1183-91. <http://www.ncbi.nlm.nih.gov/pubmed/20214479>
9. Eckart RE, Love SS, Atwood JE, et al. Incidence and follow-up of inflammatory cardiac complications after smallpox vaccination. *J Am Coll Cardiol*. 2004;44:201-5.
<http://www.vaccines.mil/documents/library/JACC-Myopericarditis.pdf>

10. Eckart RE, Shry EA, Atwood JE, et al. Smallpox vaccination and ischemic coronary events in healthy adults. *Vaccine*. Dec 5 2007;25(50):8359-8364.
<http://www.ncbi.nlm.nih.gov/pubmed/17981378?dopt=Citation>
11. Eckart RE, Shry EA, Jones SO, Atwood JE, Grabenstein JD. Comparison of clinical presentation of acute myocarditis following smallpox vaccination to acute coronary syndromes in patients <40 years of age. *Am J Cardiol*. May 15 2005;95(10):1252-1255.
<http://www.vaccines.mil/documents/library/200505%20Am%20J%20Cardiol.pdf>
12. **Fillmore, GL, Ward TP, Bower KS, Dudenhoefer, EJ, Grabenstein, JD, Barry GK, Madigan WP Jr.** Ophthalmology, 2004 NV;111(11):2086-93. **Ocular complications in the Department of Defense Smallpox Vaccination Program.**
<http://www.ncbi.nlm.nih.gov/pubmed/15522376>
13. Folio LR, Yao EF. US military smallpox vaccination program: occupational impact of immunizations on aircrew in Air Mobility Command, US Air Force. *J Am Osteopath Assoc*. Dec 2007;107(12):547-553. <http://www.jaoa.org/cgi/reprint/107/12/547>
14. Halsell JS, Riddle JR, Atwood JE, et al. Myopericarditis following smallpox vaccination among vaccinia-naïve US military personnel. *JAMA*. 2003;289:3283-89.
<http://jama.ama-assn.org/cgi/reprint/289/24/3283.pdf>
15. Jacobson IG, Smith TC, Smith B, Wells TS, Wang LZ, Reed RJ, Ryan MAK. US military service members vaccinated against smallpox in 2003 and 2004 experience a slightly higher risk of hospitalization post-vaccination vaccine. *Vaccine*. 2008; 4048-56.
<http://www.ncbi.nlm.nih.gov/pubmed/18586364?dopt=Citation>
16. Lewis FS, Norton SA, Bradshaw RD, Lapa J, Grabenstein JD. Analysis of cases reported as generalized vaccinia during the US military smallpox vaccination program, December 2002 to December 2004. *J Am Acad Dermatol*. Jul 2006;55(1):23-31.
<http://www.vaccines.mil/documents/library/SallyLewisJAADpiece.pdf>
17. McMahon AW, Zinderman C, Ball R, Gupta G, Braun MM. Comparison of military and civilian reporting rates for smallpox vaccine adverse events. *Pharmacoepidemiol Drug Saf*. Jun 2007;16(6):597-604. <http://www.ncbi.nlm.nih.gov/pubmed/17154344?dopt=Citation>
18. Melekhin VV, Karem KL, Damon IK, Bloch KC. Encephalitis after secondary smallpox vaccination. *Clin Infect Dis*. 2009 Jan 1;48(1):e1-2.
<http://www.journals.uchicago.edu/doi/pdf/10.1086/595555>
19. Mora LF, Khan AH, Sperling LS. Cardiac Complications after Smallpox Vaccination. *South Med J*. 2009 May 7. <http://www.ncbi.nlm.nih.gov/pubmed?term=mora%20lf>
20. Nalca A, Zumbrun E.E. ACAM2000; the new smallpox vaccine for United States Strategic National Stockpile. *Drug Des Devel Ther*, 2010 May 25; 4:71-9.
<http://www.ncbi.nlm.nih.gov/pubmed/20531961>

21. Neff J, Modlin J, Birkhead GS, Poland G, et al. Monitoring the safety of a smallpox vaccination program in the United States: report of the joint Smallpox Vaccine Safety Working Group of the Advisory Committee on Immunization Practices and the Armed Forces Epidemiological Board. *Clin Infect Dis.* 2008 Mar 15;46 Suppl 3:S258-70.
http://www.journals.uchicago.edu/doi/abs/10.1086/524749?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dncbi.nlm.nih.gov
22. Nell P, Kohl KS, Graham PL, et al. Progressive vaccinia as an adverse event following exposure to vaccinia virus: case definition and guidelines of data collection, analysis, and presentation of immunization safety data. *Vaccine.* Aug 1 2007;25(31):5735-5744.
<http://www.ncbi.nlm.nih.gov/pubmed/17540484?dopt=Citation>
23. Nell P, Kohl KS, Graham PL, et al. Eczema vaccinatum as an adverse event following exposure to vaccinia virus: case definition & guidelines of data collection, analysis, and presentation of immunization safety data. *Vaccine.* Aug 1 2007;25(31):5725-5734.
<http://www.ncbi.nlm.nih.gov/pubmed/17532547?dopt=Citation>
24. Oh RC. Folliculitis after smallpox vaccination: a report of two cases. *Mil Med.* Feb 2005;170(2):133-136. <http://www.ncbi.nlm.nih.gov/pubmed/15782834?dopt=Citation>
25. Peate WF. Prevention of vaccinia infection in a laboratory worker. *Mil Med.* Oct 2007;172(10):1117-1118. <http://www.ncbi.nlm.nih.gov/pubmed/17985778?dopt=Citation>
26. Poland GA, Grabenstein JD, Neff JM. The US smallpox vaccination program: a review of a large modern era smallpox vaccination implementation program. *Vaccine.* Mar 18 2005;23(17-18):2078-2081.
<http://www.ncbi.nlm.nih.gov/pubmed/15755574?dopt=Citation>
27. Ryan MA, Gumbs GR, Conlin AM, et al. Evaluation of preterm births and birth defects in liveborn infants of US military women who received smallpox vaccine. *Birth Defects Res A Clin Mol Teratol.* 2008;82:533-9.
<http://www.ncbi.nlm.nih.gov/pubmed/18496830?dopt=Citation>
28. Ryan MA, Seward JF. Smallpox Vaccine in Pregnancy Registry Team. Pregnancy, birth, and infant health outcomes from the National Smallpox Vaccine in Pregnancy Registry, 2003-2006. *Clin Infect Dis.* Mar 15 2008;46 Suppl 3:S221-6.
http://www.journals.uchicago.edu/doi/abs/10.1086/524744?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dncbi.nlm.nih.gov
29. Schumm WR. Neurologic adverse events associated with smallpox vaccination in the United States--response and comment on reporting of headaches as adverse events after smallpox vaccination among military and civilian personnel. *BMC Med.* 2006;4:27.
<http://www.ncbi.nlm.nih.gov/picrender.fcgi?artid=1647285&blobtype=pdf>

30. Sejvar JJ, Labutta RJ, Chapman LE, Grabenstein JD, Iskander J, Lane JM. Neurologic adverse events associated with smallpox vaccination in the United States, 2002-2004. *JAMA*. Dec 7 2005;294(21):2744-2750. <http://jama.ama-assn.org/cgi/reprint/294/21/2744>
31. Taylor CL, Eckart RE. Chest pain, ST elevation, and positive cardiac enzymes in an austere environment: Differentiating smallpox vaccination-mediated myocarditis and acute coronary syndrome in operation Iraqi freedom. *J Emerg Med*. 2009; <http://www.ncbi.nlm.nih.gov/pubmed/19181475>
32. Van Dam CN, Syed S, Eron JJ, Ostrander M, Engler RJ, et al. Severe postvaccinia encephalitis with acute disseminated encephalomyelitis: recovery with early intravenous immunoglobulin, high-dose steroids, and vaccinia immunoglobulin. *Clin Infect Dis*. 2009;48(4):e47-9. <http://ncbi.nlm.nih.gov/pubmed/19133803?dopt=Citation>
33. Vellozzi C, Lane JM, Averhoff F, et al. Generalized vaccinia, progressive vaccinia, and eczema vaccinatum are rare following smallpox (vaccinia) vaccination: United States surveillance, 2003. *Clin Infect Dis*. Sep 1 2005;41(5):689-697. <http://www.journals.uchicago.edu/doi/pdf/10.1086/432584>
34. Villacorta-Lyew R, Laselle B, Mazzoncini JP, Merchant E, Buckley PJ. Cardiac pathological conditions in young soldiers: case series. *Mil Med*. 2008 Nov;173(11):1122-31. <http://www.ncbi.nlm.nih.gov/pubmed/19055189?dopt=citation>
35. Waibel KH, Walsh DS. Smallpox vaccination site reactions: two cases of exaggerated scarring and a brief review. *Int J Dermatol*. Jun 2006;45(6):764-765. <http://www.ncbi.nlm.nih.gov/pubmed/16796647?dopt=Citation>
36. Waibel KH, Walsh DS. Smallpox vaccination site complications. *Int J Dermatol*. Jun 2006;45(6):684-688. <http://www.ncbi.nlm.nih.gov/pubmed/16796628?dopt=Citation>
37. Wells TS, Leardmann CA, Smith TC, et al. Self-reported adverse health events following smallpox vaccination in a large prospective study of US military service members. *Hum Vaccin*. 2007;4. <http://www.ncbi.nlm.nih.gov/pubmed/18382134?dopt=Citation>

Other Smallpox Vaccine Programs

1. Smallpox vaccine injury compensation program: Smallpox (Vaccinia) Vaccine Injury Table. Adoption of interim final rule as final rule with an amendment. *Fed Regist*. May 24 2006;71(100):29805-29808. <http://a257.g.akamaitech.net/7/257/2422/01jan20061800/edocket.access.gpo.gov/2006/pdf/06-4761.pdf>
2. Treatment for complications of smallpox vaccination. *FDA Consum*. May-Jun 2005;39(3):5. http://www.fda.gov/fdac/departs/2005/305_upd.html#smallpoxvac

3. Babic MJ. Eczema vaccinatum: a reaction to the smallpox vaccine. A report of a rare but potentially lethal consequence. *Am J Nurs.* Aug 2007;107(8):30-31.
<http://www.ncbi.nlm.nih.gov/pubmed/17667384?dopt=Citation>
4. Beigel J, Kohl KS, Brinley F, et al. Generalized vaccinia as an adverse event following exposure to vaccinia virus: case definition and guidelines for data collection, analysis, and presentation of immunization safety data. *Vaccine.* Aug 1 2007;25(31):5745-5753.
http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6TD4-4NMMNM1-2&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=0e318cf0510e0e28edd895834cf8ca0
5. Berhanu A, King DS, Mosier S, Jordan R, Jones KF, Hruby DE, Grosenbach DW. Impact of ST-246® on ACAM2000™ smallpox vaccine reactogenicity, immunogenicity, and protective efficacy in immunodeficient mice. *Vaccine.* 2010 Dec 16;29(2):289-303. *Epub 2010 Oct 29.* <http://www.ncbi.nlm.nih.gov/pubmed/21036130>
6. Bray M. Understanding smallpox vaccination. *J Infect Dis* 2011 Apr 15;203(8):1037-9.
<http://www.ncbi.nlm.nih.gov/pubmed/21450992>
7. Casey CG, Iskander JK, Roper MH, et al. Adverse events associated with smallpox vaccination in the United States, January–October 2003. *JAMA.* 2005;294:2734-2743.
<http://jama.ama-assn.org/cgi/reprint/294/21/2734>
8. Casey C, Vellozzi C, Mootrey GT, et al. Surveillance guidelines for smallpox vaccine (vaccinia) adverse reactions. *MMWR Recomm Rep.* Feb 3 2006;55(RR-1):1-16.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5501a1.htm>
9. CDC. Cardiac adverse events following smallpox vaccination---United States, 2003. *MMWR.* 2003;52:248-50. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5212a2.htm>
10. CDC. Update: adverse events following smallpox vaccination---United States, 2003. *MMWR.* 2003;52:278-82. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5213a4.htm>
11. CDC. Update: Cardiac-related events during the civilian smallpox vaccination program---United States, *MMWR.* 2003;52:492-496.
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5221a2.htm>
12. Crowe JE, Jr. Genetic predisposition for adverse events after vaccination. *J Infect Dis.* Jul 15 2007;196(2):176-177. <http://www.ncbi.nlm.nih.gov/pubmed/17570102?dopt=Citation>
13. Fenner F. Risks and benefits of vaccinia vaccine use in the worldwide smallpox eradication campaign. *Res Virol.* 1989;140:465-6; discussion 87-91.
http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=2685955

14. Gami AS, Murphy J, Cooper LT, Jr. Cautious interpretation of data regarding myopericarditis associated with smallpox vaccination. *J Am Coll Cardiol.* Jan 4 2005;45(1):160; author reply 160-161.
<http://www.ncbi.nlm.nih.gov/pubmed/15629393?dopt=Citation>
15. Ginsberg F, Parrillo JE. Eosinophilic myocarditis. *Heart Fail Clin.* Oct 2005;1(3):419-429.
<http://www.ncbi.nlm.nih.gov/pubmed/17386864?dopt=Citation>
16. **Haber P, Iskander J, Walton K., Campbell SR, Kohl KS.** Internet-based reporting to the vaccine adverse event reporting system: a more timely and complete way for providers to support vaccine safety. Immunization Safety Office, Division of Healthcare Quality Promotion, Centers for Disease Control and Prevention. *Pediatrics* 2011 May; 127 Suppl 1:S39-44. Epub 2011 Apr 18.
<http://www.ncbi.nlm.nih.gov/pubmed/21502243>
17. **Henderson DA.** The eradication of smallpox – An overview of the past, present and future. *Vaccine*, 2011 Dec 19. <http://www.ncbi.nlm.nih.gov/pubmed/22188929>
18. Klevens RM, Kupronis BA, Lawton R, Joseph D, Richards C Jr, Abshire J, Barnes M, Cardo D, Curtis A, Edwards J, Gaines Y, Horan T, Jernigan J, Pearson M, Skaggs R, Sinkowitz-Cochran R, Solomon S, Stein G, Tokars J, Tolson J, Wages J; Hospital Smallpox Vaccination-Monitoring System Team. Monitoring health care workers after smallpox vaccination: findings from the Hospital Smallpox Vaccination-Monitoring System. *Am J Infect Control.* 2005 Aug;33(6):315-9.
<http://www.ncbi.nlm.nih.gov/pubmed/16110599?dopt=Citation>
19. Kroger A, Vellozzi C, Deming M, Casey CG, Wen X, Norton SA. Dermatological lesions near the smallpox vaccination site after scab detachment. *Clin Infect Dis.* 2008 Mar 15;46 Suppl 3:S227-33.
http://www.journals.uchicago.edu/doi/abs/10.1086/524746?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dncbi.nlm.nih.gov
20. Landa G, Marcovich A, Leiba H, Springer A, Bukelman A, Pollack A. Multiple branch retinal arteriolar occlusions associated with smallpox vaccination. *J Infect.* Jan 2006;52(1):e7-9. <http://www.ncbi.nlm.nih.gov/pubmed/15936086?dopt=Citation>
21. Morgan J, Roper MH, Sperling L, Schieber RA, et al. Myocarditis, pericarditis, and dilated cardiomyopathy after smallpox vaccination among civilians in the United States, January–October 2003. *Clin Infect Dis.* 2008 Mar 15;46 Suppl 3:S242-50.
http://www.journals.uchicago.edu/doi/abs/10.1086/524747?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dncbi.nlm.nih.gov

22. McKinney BA, Reif DM, Rock MT, et al. Cytokine expression patterns associated with systemic adverse events following smallpox immunization. *J Infect Dis.* Aug 15 2006;194(4):444-453.
<http://www.ncbi.nlm.nih.gov/picrender.fcgi?artid=1620015&blobtype=pdf>
23. McMahon AW, Bryant-Genevier MC, Woo EJ, Braun MM, Ball R. Photophobia following smallpox vaccination. *Vaccine.* Jan 19 2005;23(9):1097-1098.
<http://www.ncbi.nlm.nih.gov/pubmed/15629350?dopt=Citation>
24. Muralles AA, Ray P, Black S, et al. Active telephone surveillance to evaluate adverse events among civilian smallpox vaccine recipients. *Vaccine.* Jan 23 2006;24(4):476-484.
<http://www.ncbi.nlm.nih.gov/pubmed/16216396?dopt=Citation>
25. Parrott RH, Orr WW, Preisser W. Generalized vaccinal eruptions. *Clin Proc Child Hosp Dist Columbia.* Mar 1951;7(4):104-113.
<http://www.ncbi.nlm.nih.gov/pubmed/14822261?dopt=Citation>
26. Bhattacharya S. Reflections on the eradication of smallpox. *Lancet.* 2010 May 8;375(9726):1602-3. <http://www.ncbi.nlm.nih.gov/pubmed/20458782>
27. Schwartz B, Lebwohl M. Complications of the smallpox vaccine. *Int J Dermatol.* Apr 2005;44(4):289-292. <http://www.ncbi.nlm.nih.gov/pubmed/15811079?dopt=Citation>
28. Sejvar J, Boneva R, Lane JM, Iskander J. Severe headaches following smallpox vaccination. *Headache.* Jan 2005;45(1):87-88.
<http://www.ncbi.nlm.nih.gov/pubmed/15663622?dopt=Citation>
29. Shaklee JF, Talbot TR, Muldowney JA, 3rd, et al. Smallpox vaccination does not elevate systemic levels of prothrombotic proteins associated with ischemic cardiac events. *J Infect Dis.* Mar 1 2005;191(5):724-730.
<http://www.journals.uchicago.edu/doi/pdf/10.1086/427831?cookieSet=1>
30. Sniadack MM, Neff LJ, Swerdlow DL, et al. Follow-up of cardiovascular adverse events after smallpox vaccination among civilians in the United States, 2003. *Clin Infect Dis.* 2008 Mar 15;46 Suppl 3:S251-7.
http://www.journals.uchicago.edu/doi/abs/10.1086/524741?url_ver=Z39.88-2003&rfr_id=ori:rid:crossref.org&rfr_dat=cr_pub%3dncbi.nlm.nih.gov
31. Swerdlow DL, Roper MH, Morgan J, et al. Ischemic cardiac events during the Department of Health and Human Services Smallpox Vaccination Program, 2003. *Clin Infect Dis.* 2008 Mar 15;46 Suppl 3:S234-41.
<http://www.ncbi.nlm.nih.gov/pubmed/18284363?dopt=citation>

32. Walling HW, Persichetti GB, Scupham RK. Squamous cell carcinoma in situ arising in a smallpox vaccination scar. *Int J Dermatol.* 2008 Jun;47(6):599-600. No abstract available. <http://www.ncbi.nlm.nih.gov/pubmed/18477155?dopt=citation>
33. Wenger P, Oleske JM, Kohl KS, et al. Inadvertent inoculation as an adverse event following exposure to vaccinia virus: case definition and guidelines for data collection, analysis, and presentation of immunization safety data. *Vaccine.* Aug 1 2007;25(31):5754-5762. <http://www.ncbi.nlm.nih.gov/pubmed/17537553?dopt=Citation>

IMMUNOLOGY OF SMALLPOX VACCINE

U.S. Department of Defense (DoD) Smallpox Vaccine Program

1. Kelso JM, Kuhn KM, Newman FK, Kennedy JS, Frey SE. Immune status in a primary smallpox vaccinee who failed to develop an immunization site reaction. *JAMA*. Feb 9 2005;293(6):677-678. <http://jama.ama-assn.org/cgi/reprint/293/6/677>
2. Klote MM, Engler RJ, Martin BL, Cummings JF, Wortmann GW, Ludwig GV. Vaccinia DNA in blood after smallpox vaccination. *JAMA*. Sep 20 2006;296(11):1350-1351; author reply 1351-1352. <http://www.ncbi.nlm.nih.gov/pubmed/16985223?dopt=Citation>
3. Klote MM, Ludwig GV, Ulrich MP, et al. Absence of oropharyngeal vaccinia virus after vaccinia (smallpox) vaccination. *Ann Allergy Asthma Immunol*. Jun 2005;94(6):682-685. <http://www.ncbi.nlm.nih.gov/pubmed/15984602?dopt=Citation>
4. Savitz S, Stewart J. Lessons learned from smallpox vaccination of U.S. Navy forces before Operation Iraqi Freedom. *Mil Med*. Apr 2007;172(4):353-358. <http://www.ncbi.nlm.nih.gov/pubmed/17484302?dopt=Citation>
5. Savona MR, Dela Cruz WP, Jones MS, et al. Detection of vaccinia DNA in the blood following smallpox vaccination. *JAMA*. Apr 26 2006;295(16):1898-1900. <http://jama.ama-assn.org/cgi/reprint/295/16/1898>
6. Waibel KH, Golding H, Manischewitz J, et al. Clinical and immunological comparison of smallpox vaccine administered to the outer versus the inner upper arms of vaccinia-naive adults. *Clin Infect Dis*. Feb 15 2006;42(4):e16-20. <http://www.journals.uchicago.edu/doi/pdf/10.1086/499957>

Other Smallpox Vaccine Programs

1. Amanna IJ, Slifka MK, Crotty S. Immunity and immunological memory following smallpox vaccination. *Immunol Rev*. Jun 2006;211:320-337. <http://www.ncbi.nlm.nih.gov/pubmed/16824139?dopt=Citation>
2. Balicer RD, Grotto I, Huerta M, et al. Beveled needle technique is not associated with low “take” rates in Israeli smallpox revaccination campaign. *Hum Vaccin*. Nov-Dec 2005; 1(6):224-227. <http://www.landesbioscience.com/journals/vaccines/article/balicerHV1-6.pdf>
3. Benenson AS, Cherry JD, McIntosh K, et al. Clinical and serologic study of four smallpox vaccines comparing variations of dose and route of administration. Basic study and laboratory standardization. *J Infect Dis*. 1977;135:135-44. http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?cmd=Retrieve&db=PubMed&dopt=Citation&list_uids=188950

4. Cherry JD, Connor JD, McIntosh K, et al. Clinical and serologic study of four smallpox vaccines comparing variations of dose and route of administration. Standard percutaneous revaccination of children who receive primary subcutaneous vaccination. *J Infect Dis.* 1977;135:176-82. <http://www.ncbi.nlm.nih.gov/pubmed/188953?dopt=Citation>
5. Cherry JD, McIntosh K, Connor JD, et al. Clinical and serologic study of four smallpox vaccines comparing variations of dose and route of administration. Primary percutaneous vaccination. *J Infect Dis.* 1977;135:145-54. <http://www.ncbi.nlm.nih.gov/pubmed/188951?dopt=Citation>
6. Cohen J. Bioterrorism. Smallpox vaccinations: how much protection remains? *Science.* Nov 2 2001;294(5544):985. <http://www.ncbi.nlm.nih.gov/pubmed/11691969?dopt=Citation>
7. El-Ad B, Roth Y, Winder A, et al. The persistence of neutralizing antibodies after revaccination against smallpox. *J Infect Dis.* Mar 1990;161(3):446-448. <http://www.ncbi.nlm.nih.gov/pubmed/2155973?dopt=Citation>
8. Fedorko DP, Preuss JC, Fahle GA, et al. Comparison of methods for detection of vaccinia virus in patient specimens. *J Clin Microbiol.* Sep 2005;43(9):4602-4606. <http://www.ncbi.nlm.nih.gov/picrender.fcgi?artid=1234082&blobtype=pdf>
9. Frey SE, Newman FK, Kennedy JS, Ennis F, et al. Comparison of the safety and immunogenicity of ACAM1000, ACAM2000 and DryVax in healthy vaccinia-naïve adults. *Vaccine.* Dec 9 2008; pending publication. <http://www.ncbi.nlm.nih.gov/pubmed/19071184?dopt=citation>
10. Graham PL, LaRussa PS, Kohl KS. Robust take following exposure to vaccinia virus: case definition and guidelines of data collection, analysis, and presentation of immunization safety data. *Vaccine.* Aug 1 2007;25(31):5763-5770. <http://www.ncbi.nlm.nih.gov/pubmed/17537551?dopt=Citation>
11. Hammarlund E, Lewis MW, Hanifin JM, Mori M, Koudelka CW, Slifka MK. Antiviral immunity following smallpox virus infection: a case-control study. *J Virol.* 2010 Dec;84(24):12754-60. Epub 2010 Oct 6. <http://www.ncbi.nlm.nih.gov/pubmed/20926574>
12. Hackett CJ, Rotrosen D, Plaut M. Addressing challenges for allergists in vaccination to protect against smallpox. *Ann Allergy Asthma Immunol.* Jan 2005;94(1):1-3. <http://www.ncbi.nlm.nih.gov/pubmed/15702805?dopt=Citation>
13. Huerta M, Balicer RD, Mimouni D, et al. Validity of self-assessment of skin reaction after smallpox vaccination. *Public Health Rep.* Jan-Feb 2006;121(1):45-50. <http://www.ncbi.nlm.nih.gov/picrender.fcgi?artid=1497796&blobtype=pdf>
14. Jones-Trower A, Garcia A, Meseda CA, et al. Identification and preliminary characterization of vaccinia virus (Dryvax) antigens recognized by vaccinia immune

- globulin. *Virology*. Dec 5 2005;343(1):128-140.
<http://www.ncbi.nlm.nih.gov/pubmed/16165184?dopt=Citation>
15. Kennedy RB, Ovsyannikova IG, Jacobson RM, Poland GA. The immunology of smallpox vaccines. *Curr Opin Immunol*. 2009;21(3):314-20.
<http://ncbi.nlm.nih.gov/pubmed/19524427?dopt=Citation>
16. Kennedy RB, Ovsyannikova IG, Pankratz VS, Vierkant RA, et al. Gender effects on humoral immune responses to smallpox vaccine. *Vaccine*. 2009;27(25-26):3319-23.
<http://ncbi.nlm.nih.gov/pubmed/19200827?dopt=Citation>
17. Kennedy R, Pankratz VS, Swanson E, et al. Statistical approach to estimate vaccinia-specific neutralizing antibody titers using a high-throughput assay. *Clin Vaccine Immunol*. 2009;16(8):1105-12. <http://ncbi.nlm.nih.gov/pubmed/19535540?dopt=Citation>
18. **Lantto J, Haahr Hansen M, Rasmussen SK, Steinaa L, Poulsen TR, Duggan J, Dennis M, Naylor I, Easterbrook L, Bregenholt S, Haurum J, Jensen A.** Capturing the natural diversity of the human antibody response against vaccinia virus. *J Virol*. 2011 Feb;85(4):1820-33. Epub 2010 Dec 8.
<http://www.ncbi.nlm.nih.gov/pubmed/21147924>
19. Lawrence SJ, Lottenbach KR, Newman FK, et al. Antibody responses to vaccinia membrane proteins after smallpox vaccination. *J Infect Dis*. Jul 15 2007;196(2):220-229.
<http://www.ncbi.nlm.nih.gov/pubmed/17570109?dopt=Citation>
20. Leonid I, Evelyn L. Primary Varicella in an immunocompetent adult. *J Clin Aesthet Dermatol*. 2009 Aug;2(8):36-8. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2923963/>
21. Lublin-Tennenbaum T, Katzenelson E, el-Ad B, Katz E. Correlation between cutaneous reaction in vaccinees immunized against smallpox and antibody titer determined by plaque neutralization test and ELISA. *Viral Immunol*. Spring 1990;3(1):19-25.
<http://www.ncbi.nlm.nih.gov/pubmed/2297392?dopt=Citation>
22. McIntosh K, Cherry JD, Benenson AS, et al. Clinical and serologic study of four smallpox vaccines comparing variations of dose and route of administration. Standard percutaneous revaccination of children who receive primary percutaneous vaccination. *J Infect Dis*. 1977;135:155-66. <http://www.ncbi.nlm.nih.gov/pubmed/188952?dopt=Citation>
23. **Merkel TJ, Perera PY, Kelly VK, Verma A, Llewellyn ZN, Waldmann TA, Mosca JD, Perera LP.** Development of a highly efficacious vaccinia-based dual vaccine against smallpox and anthrax, two important bioterror entities. *Proc Natl Acad Sci U S A*. 2010 Oct 19;107(42):18091-6. Epub 2010 Oct 4.
24. Meseda CA, Weir JP. Third-generation smallpox vaccines: challenges in the absence of clinical smallpox. *Future Microbiol*. 2010 Sep;5:1367-82.
<http://www.ncbi.nlm.nih.gov/pubmed/20860482>

25. Moss B. Smallpox vaccines: targets of protective immunity. *Immunol Rev.* 2011 Jan;239(1):8-26. doi:10.111/j1600-65x.2010.00975x. Laboratory of Viral Disease, National Institute of Allergy and Infectious Diseases, National Institutes of Health. <http://www.ncbi.nlm.nih.gov/pubmed/21198662>
26. O'Gorman WE, Sampath P, Simonds EF, Sikorski R, O'Malley M, Krutzik PO, Chen H, Panchanathan V, Chaudhri G, Karupiah G, Lewis DB, Thorne SH, Nolan GP. Alternate mechanisms of initial pattern recognition drive differential immune responses to related poxviruses. *Cell Host Microbe.* 2010 Aug 19;8(2):174-85. <http://www.ncbi.nlm.nih.gov/pubmed/20709294>
27. Orr N, Forman M, Marcus H, et al. Clinical and immune responses after revaccination of Israeli adults with the Lister strain of vaccinia virus. *J Infect Dis.* Oct 1 2004;190(7):1295-1302. <http://www.journals.uchicago.edu/doi/pdf/10.1086/423851>
28. Simpson EL, Hercher M, Hammarlund EK, Lewis MW, Slifka MK, Hanifin JM. Cutaneous responses to vaccinia in individuals with previous smallpox vaccination. *J Am Acad Dermatol.* Sep 2007;57(3):442-444. <http://www.ncbi.nlm.nih.gov/pubmed/17560685?dopt=Citation>
29. Stanley SL, Jr., Frey SE, Taillon-Miller P, et al. The immunogenetics of smallpox vaccination. *J Infect Dis.* Jul 15 2007;196(2):212-219. <http://www.ncbi.nlm.nih.gov/pubmed/17570108?dopt=Citation>
30. Taub DD, Ershler WB, Janowski M, et al. Immunity from smallpox vaccine persists for decades: a longitudinal study. *Am J Med.* 2008 Dec;121(12):1058-64. <http://www.ncbi.nlm.nih.gov/picrender.fcgi?artid=2610468&blobtype=pdf>
31. Treanor J, Wu H, Liang H, Topham DJ. Immune responses to vaccinia and influenza elicited during primary versus recent or distant secondary smallpox vaccination of adults. *Vaccine.* Nov 17 2006;24(47-48):6913-6923. <http://www.ncbi.nlm.nih.gov/pubmed/17014939?dopt=Citation>
32. Umlauf BJ, Ovsyannikova IG, Haralambieva IH, Kennedy RB, Vierkant RA, Pankratz, Jacobson RM, Poland GA. Correlations between vaccinia-specific immune responses within a cohort of armed forces members. *Viral Immunol.* 2011 Oct; 24(5):415-20. *Equine Vet J.* 2011 Sep 29.
33. Viner KM, Isaacs SN. Activity of vaccinia virus-neutralizing antibody in the sera of smallpox vaccinees. *Microbes Infect.* Apr 2005;7(4):579-583. <http://www.ncbi.nlm.nih.gov/pubmed/15848274?dopt=Citation>
34. Westphall JS. Smallpox--inappropriate vaccination site. *Aviat Space Environ Med.* Nov 2006;77(11):1193-1195. <http://www.ncbi.nlm.nih.gov/pubmed/17086777?dopt=Citation>

- 35. Wiser I, Orr N, Smetana Z, Spungin-Bialik A, Mendelson E, Cohen D.** Alternative immunological markers to document successful multiple smallpox revaccinations. *Clin Infect Dis.* 2011 Apr 1;52(7):856-61.
<http://www.ncbi.nlm.nih.gov/pubmed/21427392>

SECONDARY TRANSMISSION OF VACCINIA

U.S. Department of Defense (DoD) Smallpox Vaccine Program

1. Barkdull TW, Cabiad RB, Tankersley MS, et al. Secondary and tertiary transfer of vaccinia virus among U.S. military personnel—United States and worldwide, 2002–2004. *MMWR.* 2004;53(Feb 13):103-105. <http://www.cdc.gov/mmwr/PDF/wk/mm5305.pdf>
2. Centers for Disease Control and Prevention (CDC). *Vaccinia virus infection after sexual contact with a military smallpox vaccinee -Washington, 2010.* *MMWR Morb Mortal Wkly Rep.* 2010 Jul 2;59(25):773-5. <http://www.ncbi.nlm.nih.gov/pubmed/20592687>
3. CDC. Household transmission of vaccinia virus from contact with a military smallpox vaccinee--Illinois and Indiana, 2007. *MMWR Morb Mortal Wkly Rep.* May 18 2007;56(19):478-481. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5619a4.htm>
4. CDC. Vulvar vaccinia infection after sexual contact with a military smallpox vaccinee--Alaska, 2006. *MMWR Morb Mortal Wkly Rep.* May 4 2007;56(17):417-419. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5617a1.htm>
5. CDC. Women with smallpox vaccine exposure during pregnancy reported to the National Smallpox Vaccine in Pregnancy Registry—United States, 2003. *MMWR Morb Mortal Wkly Rep.* May 2, 2003;52(17):386-388. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5217a3.htm>
6. Cummings JF, Polhemus ME, Hawkes C, Klote M, et al. Persistence of vaccinia at the site of smallpox vaccination. *Clin Inf Dis.* 2008;46:000. <http://www.vaccines.mil/documents/library/Cummings2008CID000.pdf>
7. Lederman E, Miramontes R, Openshaw J, Olsen VA, Karem KL, et al. Eczema vaccinatum resulting from the transmission of vaccinia virus from a smallpox vaccine: An investigation of potential fomites in the home environment. *Vaccine.* Jan 14 2009;27(3):375. <http://www.ncbi.nlm.nih.gov/pubmed/19027813?dopt=Citation>
8. Muzny CA, King H, Byers P, Currier M, et al. Vulvar vaccinia infection after sexual contact with a smallpox vaccine. *Am J Med Sci.* 2009;337(4):289-91. <http://ncbi.nlm.nih.gov/pubmed/19365178?dopt=Citation>

9. Napolitano PG, Ryan MA, Grabenstein JD. Pregnancy discovered after smallpox vaccination: Is vaccinia immune globulin appropriate? *Am J Obstet Gynecol*. Dec 2004;191(6):1863-1867. <http://www.ncbi.nlm.nih.gov/pubmed/15592266?dopt=Citation>
10. Savona MR, Cruz WP, Thornton JA, Danaher PJ. Comparison of a semipermeable dressing bonded to an absorbent pad and a semipermeable dressing over a separate gauze pad for containment of vaccinia virus at the vaccination site. *Infect Control Hosp Epidemiol*. Dec 2007;28(12):1339-1343. <http://www.ncbi.nlm.nih.gov/pubmed/17952843?dopt=Citation>
11. Vora S, Damon I, Fulginiti V, Weber SG, Kahana M, et al. Severe eczema vaccinatum in a household contact of a smallpox vaccine. *Clin Infect Dis*. 2008 May 15; 46(10):1555-61. <http://www.ncbi.nlm.nih.gov/pubmed/18419490?dopt=Citation>
12. Young GE, Hidalgo CM, Sullivan-Frohm A, Schult C, Davis S, Kelly-Cirino C, Egan C, Wilkins K, Emerson GL, Noves K, Blog D. Secondary and tertiary transmission of vaccinia virus from US military service member. *Emerg Infect Dis*. 2011 Apr;17(4):718-21. <http://www.ncbi.nlm.nih.gov/pubmed/21470470>

Other Smallpox Vaccine Programs

1. CDC. Laboratory-acquired vaccinia virus infection—Virginia, 2008. *MMWR*. 2009;58(29):797-800. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5829a1.htm>
2. Stark JH, Frey SE, Blum PS, Monath TP. Lack of transmission of vaccinia virus. *Emerg Infect Dis*. Apr 2006;12(4):698-700. http://www.cdc.gov/ncidod/EID/vol12no04/pdfs/05_1373.pdf
3. Talbot TR, Peters J, Yan L, Wright PF, Edwards KM. Optimal bandaging of smallpox vaccination sites to decrease the potential for secondary vaccinia transmission without impairing lesion healing. *Infect Control Hosp Epidemiol*. Nov 2006;27(11):1184-1192. http://www.vaccines.mil/documents/library/ICHE_nov06_vol27_no11.pdf

SMALLPOX VACCINE

U.S. Department of Defense (DoD) Smallpox Vaccine Program

1. Grabenstein JD, Winkenwerder W, Jr. US military smallpox vaccination program experience. *JAMA*. Jun 25 2003;289(24):3278-3282. <http://jama.ama-assn.org/cgi/reprint/289/24/3278.pdf>
2. Wertheimer ER, Olive DS, Brundage JF, Clark LL. Contact transmission of vaccinia virus from smallpox vaccinees in the United States, 2003-2011. Armed Forces Health Surveillance Center. *Vaccine*. 2011 Dec 20. <http://www.ncbi.nlm.nih.gov/pubmed/22192851>

Other Smallpox Vaccine Programs

1. Arita I. Smallpox vaccine and its stockpile in 2005. *Lancet Infect Dis*. Oct 2005;5(10):647-652. <http://www.ncbi.nlm.nih.gov/pubmed/16183519?dopt=Citation>
2. Baggs J, Chen RT, Damon IK, et al. Safety profile of smallpox vaccine: insights from the laboratory worker smallpox vaccination program. *Clin Infect Dis*. Apr 15 2005;40(8):1133-1140. <http://www.journals.uchicago.edu/doi/pdf/10.1086/428731>
3. Birmingham K, Kenyon G. Smallpox vaccine development quickened. *Nat Med*. Nov 2001;7(11):1167. <http://www.nature.com/nm/journal/v7/n11/full/nm1101-1167b.html>
4. Chastel C. Adventitious viruses and smallpox vaccine. *Emerg Infect Dis*. Nov 2005;11(11):1789. <http://www.cdc.gov/ncidod/EID/vol11no11/pdfs/05-1031.pdf>
5. Couch RB, Winokur P, Edwards KM, et al. Reducing the dose of smallpox vaccine reduces vaccine-associated morbidity without reducing vaccination success rates or immune responses. *J Infect Dis*. Mar 15 2007;195(6):826-832. <http://www.journals.uchicago.edu/doi/abs/10.1086/511828>
6. Damon IK, Davidson WB, Hughes CM, Olson VA, et al. Evaluation of smallpox vaccines using variola neutralization. *J Gen Virol*. 2009;90(Pt 8):1962-6. <http://ncbi.nlm.nih.gov/pubmed/19339477?dopt=Citation>
7. Fenner F, Henderson DA, Arita I, Jezek Z, Ladnyi ID. Smallpox and its eradication. Geneva, Switzerland: World Health Organization, 1988. <http://whqlibdoc.who.int/smallpox/9241561106.pdf>
8. Golden JW, Hooper JW. The strategic use of novel smallpox vaccines in the post-eradication world. *Expert Rev Vaccines*. 2011 Jul;10(7):1021-35. <http://www.ncbi.nlm.nih.gov/pubmed/21806397>

9. Greenberg RN, Kennedy JS, Clanton DJ, et al. Safety and immunogenicity of new cell-cultured smallpox vaccine compared with calf-lymph derived vaccine: a blind, single-centre, randomised controlled trial. *Lancet*. Jan 29-Feb 4 2005;365(9457):398-409.
<http://www.ncbi.nlm.nih.gov/pubmed/15680454?dopt=Citation>
10. Greenberg RN, Kennedy JS. ACAM2000: a newly licensed cell culture-based live vaccinia smallpox vaccine. *Expert Opin Investig Drugs*. 2008 Apr;17(4):555-64. Review.
<http://www.ncbi.nlm.nih.gov/pubmed/18363519?dopt=citation>
11. **Henderson DA. Smallpox virus destruction and the implications of a new vaccine.** *Biosecur Bioterror*. 2011 Jun;9(2):163-8. Epub 2011 Mar 16.
<http://www.ncbi.nlm.nih.gov/pubmed/21410355>
12. Kim SH, Oh MD. Persistence of cell-mediated immunity to vaccinia virus. *J Infect Dis*. Sep 1 2007;196(5):805-806.<http://www.ncbi.nlm.nih.gov/pubmed/17674329?dopt=Citation>
13. McFadden G. Killing a killer: what next for smallpox? *PLoS Pathog*. 2010 Jan 29;6(1):e1000727. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2813274/>
14. Metzger W, Mordmueller BG. Vaccines for preventing smallpox. *Cochrane Database Syst Rev*. 2007(3):CD004913.
<http://mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD004913/frame.html>
15. Poland GA, Henderson D. Thirty years after smallpox: celebration and sobering thoughts. *Vaccine*. 2010 May 28;28(24):4013-4. <http://www.ncbi.nlm.nih.gov/pubmed/20534323>
16. Poland GA. Smallpox vaccines: from first to second to third generation. *Lancet*. Jan 29-Feb 4 2005;365(9457):362-363. <http://www.ncbi.nlm.nih.gov/pubmed/15680437?dopt=Citation>
17. **Qin L, Upton C, Haze B, Evans DH. Genomic analysis of the vaccinia virus strain variants found in dryvax vaccine.** *J Virol*. 2011 Dec;85(24):13049-60. Epub 2011 Oct 5. <http://www.ncbi.nlm.nih.gov/pubmed/21976639>
18. **Roth GA, Fee E. Images of health. Smallpox: the first vaccine.** *Am J Public Health*. 2011 Jul;101(7):1217. Epub 2011 May 12.
<http://www.ncbi.nlm.nih.gov/pubmed/21566041>
19. Rotz LD, Dotson DA, Damon IK, Becher JA. Vaccinia (smallpox) vaccine: recommendations of the Advisory Committee on Immunization Practices (ACIP), 2001. *MMWR Recomm Rep*. Jun 22 2001;50(RR-10):1-25; quiz CE21-27.
<http://www.cdc.gov/mmwr/PDF/tr/rr5010.pdf>
20. **Sato H. Countermeasures and vaccination against terrorism using smallpox: pre-event and post-event smallpox vaccination and its contraindications.** *Environ Health Prev Med*. 2011 Sep;16(5):281-9. doi: 10.1007/s12199-010-0200-z. Epub 2010 Dec 21. Review. <http://www.ncbi.nlm.nih.gov/pubmed>

21. Shchelkunov SN. Emergence and reemergence of smallpox: The need in development of a new generation smallpox vaccine. *Vaccine*. 2011 Dec 18. <http://www.ncbi.nlm.nih.gov/pubmed/22185833>
22. Tomori O. From smallpox eradication to the future of global health: Innovations, application and lessons for future eradication and control initiatives. *Vaccine*. 2011 Dec 18. <http://www.ncbi.nlm.nih.gov/pubmed/22185830>
23. Tognotti E. *The eradication of smallpox, a success story for modern medicine and public health: what lessons for the future?* J Infect Dev Ctries. 2010 Jun 3;4(5):264-6. <http://www.ncbi.nlm.nih.gov/pubmed/20539058>
24. Vutuc C, Flamm H. Thirtieth anniversary of world health organization's worldwide smallpox eradication. *Wien Klin Wochenschr.* 2010 May; 122(9-10):276-9 <http://www.springerlink.com/content/b8t72q48g1500442/>
25. Villumsen M, Sørup S, Jess T, Relander T, Baker JL, et al. Risk of lymphoma and leukaemia after bacilli Calmette-Guérin and smallpox vaccination: a Danish case-cohort study. *Vaccine*. 2009;27(49):6950-8. <http://www.ncbi.nlm.nih.gov/pubmed/19747577?dopt=Citation>
26. Wiser I, Orr N, Kaufman B, Segev S, Smetana Z, Bialik A, Epstein N, Mendelson E, Catane R, Cohen D. Immunosuppressive treatments reduce long-term immunity to smallpox among patients with breast cancer. *J Infect Dis.* 2010 May 15;201(10):1527-34. <http://www.ncbi.nlm.nih.gov/pubmed/20388035>
27. Wiser I, Balicer RD, Cohen D. An update on smallpox vaccine candidates and their role in bioterrorism related vaccination strategies. *Vaccine*. Jan 22 2007;25(6):976-984. <http://www.ncbi.nlm.nih.gov/pubmed/17014939?dopt=Citation>
28. World Health Organization Expert Committee on Smallpox Eradication: second report. *WHO Tech Rep Ser.* 1972;493:5–64. [Out of print] <http://www.who.int/bookorders/anglais/detart1.jsp?sesslan=1&codlan=1&codcol=10&codcch=493>
29. Zikmund V. An active participant in the eradication program of smallpox. *Cent Eur J Public Health.* 2010 Mar;18(1):55-6. <http://www.ncbi.nlm.nih.gov/pubmed/20586232>

THREAT AND BIOPREPAREDNESS

U.S. Department of Defense (DoD) Smallpox Vaccine Program

1. Artenstein AW. Vaccines for military use. *Vaccine*. 2009;5 Suppl 4:D16-22. <http://www.ncbi.nlm.nih.gov/pubmed/19837279?dopt=Citation>
2. Kennedy RB, Ovsannikova I, Poland GA. Smallpox vaccines for biodefense. *Vaccine*. 2009 Nov 5;27 Suppl 4:D73-9. <http://www.ncbi.nlm.nih.gov/pubmed/19837292?dopt=Citation>
3. Leardmann CA, Smith B, Smith TC, Wells TS, Ryan MA. Smallpox Vaccination: Comparison of Self-Reported and Electronic Vaccine Records in the Millennium Cohort Study. *Hum Vaccin*. Jun 14 2007;3(6). <http://www.ncbi.nlm.nih.gov/pubmed/17700077?dopt=Citation>
4. Olmsted SS, Grabenstein JD, Jain AK, et al. Use of an electronic monitoring system for self-reporting smallpox vaccine reactions. *Biosecur Bioterror*. 2005;3(3):198-206. http://www.vaccines.mil/documents/library/Smallpox_Adverse_Event_Electronic_Monitoring.pdf
5. Olmsted SS, Grabenstein JD, Jain AK, Lurie N. Patient experience with, and use of, an electronic monitoring system to assess vaccination responses. *Health Expect*. Jun 2006;9(2):110-117. <http://www.ncbi.nlm.nih.gov/pubmed/16677190?dopt=Citation>

Other Smallpox Vaccine Programs

1. Artenstein AW, Grabenstein JD. Smallpox vaccines for biodefense: need and feasibility. *Expert Rev Vaccines*. 2008 Oct;7(8):1225-37. Review. <http://www.ncbi.nlm.nih.gov/pubmed/18844596?dopt=citation>
2. Bass SB, Ruzek SB, Gordon TF, Hanlon AL. Preparedness for a smallpox outbreak: comparing metrics for assessing levels of vaccination among health-care workers by state. *Epidemiol Infect*. May 2007;135(4):622-633. <http://www.ncbi.nlm.nih.gov/pubmed/16953952?dopt=Citation>
3. Dellavalle RP, Heilig LF, Francis SO, et al. What dermatologists do not know about smallpox vaccination: results from a worldwide electronic survey. *J Invest Dermatol*. May 2006;126(5):986-989. <http://www.nature.com/jid/journal/v126/n5/pdf/5700235a.pdf>
4. Di Pentima MC, Eppes SC, Klein JD. Pediatricians knowledge, views, and perspectives on smallpox and smallpox vaccine. *Clin Pediatr (Phila)*. Mar 2006;45(2):165-172. <http://www.ncbi.nlm.nih.gov/pubmed/16528437?dopt=Citation>

5. Egan JR, Hall IM, Leach S. Stamping Out Fires! Controlling Smallpox with Targeted Mass Vaccination. *Med Decis Making*. 2010 Sep 20.
<http://www.ncbi.nlm.nih.gov/pubmed/20484093>
6. Ein D, Gruchalla R, Baker JR, et al. Pre-event smallpox vaccination and postevent exposure and disease: a report of the Joint Task Force on Smallpox Vaccination for Allergists. *Ann Allergy Asthma Immunol*. Jan 2005;94(1):4-7.
<http://www.ncbi.nlm.nih.gov/pubmed/15702806?dopt=Citation>
7. Gibson JJ, Duffus WA. The response to the diagnosis of smallpox (variola) in South Carolina—what every practitioner should know. *JSC Med Assoc*. 2009;105(3):90-3.
<http://www.ncbi.nlm.nih.gov/pubmed/19639763?dopt=Citation>
8. Handley L, Buller RM, Frey SE, et al. The new ACAM2000 vaccine and other therapies to control orthopoxvirus outbreaks and bioterror attacks. *Expert Rev Vaccines*. 2009;8(7):841-50. <http://ncbi.nlm.nih.gov/pubmed/19538111?dopt=Citation>
9. Henderson DA, Inglesby TV, Bartlett JG, et al. Smallpox as a biological weapon: medical and public health management. Working Group on Civilian Biodefense. *JAMA* 1999;281:2127-37. <http://jama.ama-assn.org/cgi/reprint/281/22/2127>
10. Institute of Medicine. Board on Health Promotion and Disease Prevention. The smallpox vaccination program: public health in an age of terrorism. *National Academy of Sciences*. 2005. <http://www.nap.edu/openbook.php?isbn=0309095921>
11. Jacobs BL, Landland JO, Kibler KV, et al. Vaccinia virus vaccines: past, present and future. *Antiviral Res*. 2009;84(1):1-13.
<http://ncbi.nlm.nih.gov/pubmed/19563829?dopt=Citation>
12. Jahrling PB, Fritz EA, Hensley LE. Countermeasures to the bioterrorist threat of smallpox. *Curr Mol Med*. Dec 2005;5(8):817-826.
<http://www.ncbi.nlm.nih.gov/pubmed/16375715?dopt=Citation>
13. Kaltman S, Tractenberg RE, Taylor K, Green BL. The smallpox vaccine: a multidimensional model of choice. *Biosecur Bioterror*. 2006;4(1):64-73.
<http://www.liebertonline.com/doi/abs/10.1089/bsp.2006.4.64>
14. Mair M. Recent progress in biodefence countermeasure development. *Biosecur Bioterror*. Jun 2007;5(2):93-96. <http://www.liebertonline.com/doi/abs/10.1089/bsp.2007.0903>
15. Margolis AR, Grabenstein JD. Immunizations against bioterrorism: smallpox and anthrax. *J Am Pharm Assoc*. 2009;49(4):566-8.
<http://ncbi.nlm.nih.gov/pubmed/19589771?dopt=Citation>
16. McKenzie FE. Smallpox models as policy tools. *EID*. 2004;10(11):2044-47.
<http://www.cdc.gov/ncidod/EID/vol10no11/pdfs/04-0455.pdf>

17. Moore ZS, Seward JF, Lane JM. Smallpox. *Lancet*. Feb 4 2006;367(9508):425-435. <http://www.ncbi.nlm.nih.gov/pubmed/16458769?dopt=Citation>
18. Rinaggio J, Glick M. The smallpox vaccine: An update for oral health care professionals. *J Am Dent Assoc*. Apr 2006;137(4):452-460. <http://jada.ada.org/cgi/reprint/137/4/452>
19. Russell PK. Project BioShield: what it is, why it is needed, and its accomplishments so far. *Clin Infect Dis*. Jul 15 2007;45 Suppl 1:S68-72. <http://www.ncbi.nlm.nih.gov/pubmed/17582574?dopt=Citation>
20. Schneider CP, McDonald MD. The king of terrors" revisited: the smallpox vaccination campaign and its lessons for future biopreparedness. *J Law Med Ethics*. 2003 Winter;31(4):580-9. <http://www.ncbi.nlm.nih.gov/pubmed/14968660>
21. Wharton M, Strikas RA, Harpaz R, et al. Recommendations for using smallpox vaccine in a pre-event vaccination program. Supplemental recommendations of the Advisory Committee on Immunization Practices (ACIP) and the Healthcare Infection Control Practices Advisory Committee (HICPAC). *MMWR Recomm Rep*. Apr 4 2003;52(RR-7):1-16. <http://www.cdc.gov/mmwr/PDF/rr/rr5207.pdf>
22. Zenihana T, Ishikawa H. Effectiveness of countermeasures against bioterrorist smallpox attacks in Japan using an individual-based model. *Environ Health Prev Med*. 2009 Sep 26. <http://www.ncbi.nlm.nih.gov/pubmed?term=zenihana>

SMALLPOX VACCINE STOCKPILE

1. **Tucker, JB.** Breaking the deadlock over destruction of the smallpox virus stocks. *Biosecur Bioterror*. 2011 Mar;9(1):55-67. <http://www.ncbi.nlm.nih.gov/pubmed/21219134>
2. **Lane, JM, Poland, GA.** Why not destroy the remaining smallpox virus stocks? *Vaccine* 2011 Apr 5;29(16):2823-4. <http://www.ncbi.nlm.nih.gov/pubmed/21376120>
3. **Weinstein RS.** Should remaining stockpiles of smallpox virus (variola) be destroyed? *Emerg Infect Dis*. 2011 Apr;17(4):681-3. <http://www.ncbi.nlm.nih.gov/pubmed/21470459>
4. Nalca A, Zumbrun EE. ACAM2000: the new smallpox vaccine for United States Strategic National Stockpile. *Drug Des Devel Ther*. 2010 May 25;4:71-9. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2880337/>
5. Paran N, Sutter G. Smallpox vaccines: New formulations and revised strategies for vaccination. *Hum Vaccin*. 2009 Dec;5(12):824-31. Epub 2009 Dec 1. <http://www.ncbi.nlm.nih.gov/pubmed/19946203>

6. Arita I. Smallpox vaccine and its stockpile in 2005. *Lancet Infect Dis.* Oct 2005;5(10):647-652. <http://www.ncbi.nlm.nih.gov/pubmed/16183519?dopt=Citation>
7. Murphy FA, Osburn BI. Adventitious agents and smallpox vaccine in strategic national stockpile. *Emerg Infect Dis.* Jul 2005;11(7):1086-1089. <http://www.cdc.gov/ncidod/EID/vol11no07/05-0277.htm>

SMALLPOX VACCINE HANDLING AND STORAGE

1. Wickett J, Carrasco P. Logistics in smallpox: The legacy. *Vaccine.* 2011 Dec 19. <http://www.ncbi.nlm.nih.gov/pubmed/22188937>
2. Lee KN, Hutson CL, Kline R, et al. Smallpox vaccine stability after maintenance at temperatures not recommended for shipping. *Vaccine.* Feb 13 2006;24(7):884-886. <http://www.ncbi.nlm.nih.gov/pubmed/16183175?dopt=Citation>

SMALLPOX VACCINE PRECAUTIONS AND SCREENING

Belongia EA, Naleway A, Kieke B, et al. Validation of a screening instrument to identify persons for exclusion from smallpox vaccination. *Clin Infect Dis.* Feb 15 2005;40(4):620-623. <http://www.journals.uchicago.edu/doi/pdf/10.1086/427694>

SMALLPOX VACCINE REGISTRIES

1. Brouwers L, Boman M, Camitz M, Mäkilä K, Tegnell A. Micro-simulation of a smallpox outbreak using official register data. *Euro Surveill.* 2010 Sep 2;15(35). pii: 19651. <http://www.ncbi.nlm.nih.gov/pubmed/20822732>
2. Ryan MA, Seward JF; Smallpox Vaccine in Pregnancy Registry Team. Pregnancy, birth, and infant health outcomes from the National Smallpox Vaccine in Pregnancy Registry, 2003-2006. *Clin Infect Dis.* 2008 Mar 15;46 Suppl 3:S221-6. <http://www.ncbi.nlm.nih.gov/pubmed/18284362>
3. Drake M. The vaccination registers: what are they and what can we learn from them? *Local Popul Stud.* Spring 2005(74):36-53. <http://www.ncbi.nlm.nih.gov/pubmed/16060073?dopt=Citation>

PERCEPTIONS AND BELIEFS ABOUT SMALLPOX THREAT AND VACCINE

U.S. Department of Defense (DoD) Smallpox Vaccine Program

1. Maurer D, Fulton C, Doria M. Factors that influence the decision of military dependents to decline smallpox vaccination during an outbreak. *Mil Med.* Apr 2006;171(4):321-324.
<http://www.ncbi.nlm.nih.gov/pubmed/16673747?dopt=Citation>
2. Savitz S, Stewart J. Lessons learned from smallpox vaccination of U.S. Navy forces before Operation Iraqi Freedom. *Mil Med.* Apr 2007;172(4):353-358.
<http://www.ncbi.nlm.nih.gov/pubmed/17484302?dopt=Citation>

Other Smallpox Vaccine Programs

1. Bass SB, Gordon TF, Ruzek SB, Hausman AJ. Mapping perceptions related to acceptance of smallpox vaccination by hospital emergency room personnel. *Biosecur Bioterror.* 2008 Jun;6(2):179-90. <http://www.ncbi.nlm.nih.gov/pubmed/18563995?dopt=Citation>
2. Huemer HP, Lassnig C, Bernhard D, Sturm S, Nowotny N, Kitchen M, Pavlic M. Cannabinoids lead to enhanced virulence of the smallpox vaccine (vaccinia) virus. *Immunobiology.* 2010 Nov 16. <http://www.ncbi.nlm.nih.gov/pubmed/21131094>
3. Kaltman S, Tractenberg RE, Taylor K, Green BL. The smallpox vaccine: a multidimensional model of choice. *Biosecur Bioterror.* 2006;4(1):64-73.
<http://www.ncbi.nlm.nih.gov/pubmed/16545025?dopt=Citation>
4. Lindley MC, Wortley PM, Winston CA, Schwartz B. Programmatic factors related to smallpox vaccine uptake by healthcare workers and others. *Infect Control Hosp Epidemiol.* Nov 2006;27(11):1242-1245. <http://www.journals.uchicago.edu/doi/pdf/10.1086/508834>
5. Malone JD. Pre-event smallpox vaccination for healthcare workers revisited--the need for a carefully screened multidisciplinary cadre. *Int J Infect Dis.* Mar 2007;11(2):93-97.
<http://www.ncbi.nlm.nih.gov/pubmed/17306582?dopt=Citation>
6. Marshall KM, Begier EM, Griffith KS, Adams ML, Hadler JL. A population survey of smallpox knowledge, perceptions, and healthcare-seeking behavior surrounding the Iraq invasion--Connecticut 2002-03. *Biosecur Bioterror.* 2005;3(3):246-255.
<http://www.ncbi.nlm.nih.gov/pubmed/16181047?dopt=Citation>
7. Silk BJ, del Rio C, Ivansco LK, et al. Pre-event willingness to receive smallpox vaccine among physicians and public safety personnel. *South Med J.* Sep 2005;98(9):876-882.
<http://www.ncbi.nlm.nih.gov/pubmed/16217979?dopt=Citation>
8. Wortley PM, Levy PS, Quick L, et al. Predictors of smallpox vaccination among healthcare workers and other first responders. *Am J Prev Med.* Jun 2007;32(6):538-541.
<http://www.ncbi.nlm.nih.gov/pubmed/17533071?dopt=Citation>

9. Wortley PM, Schwartz B, Levy PS, Quick LM, Evans B, Burke B. Healthcare workers who elected not to receive smallpox vaccination. *Am J Prev Med.* Mar 2006;30(3):258-265.
<http://www.ncbi.nlm.nih.gov/pubmed/16476643?dopt=Citation>