



Infectious Disease

One of the earliest contributions of VA researchers to medical science was the establishment of effective treatments for tuberculosis, back in the 1930s and 1940s. Since then, VA scientists have helped advance the understanding, prevention, and treatment of numerous infectious diseases, ranging from the common cold to major public-health threats such as AIDS.



Examples of VA Research Advances

MRSA targeted as part of study on electronic health records – As part of a larger VA project aimed at allowing researchers, clinicians, and managers to make better use of free text in VA's electronic medical record, one study is focusing on methicillin-resistant *Staphylococcus aureus*, or MRSA. The tough-to-treat germ has long been the nemesis of infection-control experts in hospitals worldwide. It causes tens of thousands of serious infections each year in the U.S. alone. The new study aims to capture more MRSA-relevant information in the electronic medical record, beyond standard coded data, so surveillance and control can be improved.

Making flu drugs go further – A group at the Palo Alto VA is collaborating with researchers at VA's Clinical Research Pharmacy Coordinating Center in Albuquerque to develop a sustained-release version of a drug—probenecid—that can be given along with the antiviral drug oseltamivir (sold as Tamiflu) to prolong its flu-fighting effects. An earlier trial found the drug combination safe and feasible, but patients had to take probenecid capsules four times a day. The goal now is to make the regimen easier. If validated in further clinical trials, it could be a value strategy in future flu outbreaks.

HIV therapy linked to low bone density – An international team including researchers at the Washington, DC, VA hospital found that continuous antiretroviral therapy—an aggressive form of treatment for HIV—decreases bone mineral density more than intermittent therapy. Researchers are working to understand whether the effects on bone are due to drug treatment, the virus itself, or other factors.

Facts About Infectious Diseases

Infectious diseases are generally classified according to the source of the infection. The major types are viral, bacterial, parasitic, and fungal. In the VA health care system, two viral diseases of special concern are HIV-AIDS and hepatitis C. VA maintains special websites devoted to these conditions: www.hiv.va.gov and www.hepatitis.va.gov. VA investigators are studying these and a wide range of other infectious diseases and working toward developing effective new preventive strategies, vaccines, and drugs. In recent years, bioterror—the use of bacteria, viruses, or toxins to harm people—has become a concern for public health officials, and VA hospitals take part in a national program called BioSense to help track and investigate suspected bioterror events.

