



Epidemiologic Notes & Reports

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Rabies in Kentucky—2001

By
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The Division of Laboratory Services and the Breathitt Veterinary Center received 1305 animal specimens for rabies testing in 2001. There were 56 (4.3%) samples unsuitable for testing because of decomposition or extreme traumatic damage to the brain. There were 30 (2.3%) specimens that tested rabies positive; only 5 (16.7% of positives) cases were domestic animals and the remaining 25 cases were wildlife. (Table 1.)

Table 1. Animals Submitted for Testing and Number

Species	Number Received	% of Total	Number Positive	% Positive
Canine (domestic)	358	27.4	3	0.8
Feline (domestic)	411	31.5	1	0.2
Bovine	77	5.9	0	0.0
Equine	67	5.1	1	1.5
Other Domestic	15	1.1	0	0.0
Rodents/ Rabbits	73	5.6	0	0.0
Bat	101	7.7	8	7.9
Skunk	37	2.8	15	40.5
Other Wildlife	166	12.7	2*	1.2
Totals	1305	99.8**	30	2.3

*2 of 23 foxes tested

** < 100.0% due to rounding

The total of 30 rabies cases is only slightly lower than the preceding 5-year mean of 32 animal rabies cases. There were 3 positive dogs compared to a mean of 2.5 positive dogs for the preceding 5 years and 1 positive kitten compared to only 1 positive cat in the preceding 5 years. Even more disturbing is that all 3 of the dogs were owned and unvaccinated. The kitten was also owned, but too young for vaccination. There should be no rabid dogs in Kentucky since there is a statewide law

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requiring rabies vaccination of all dogs. Owned domestic animals nearly always result in multiple human exposures (10, 5, and 4, exposures in these incidents (1 incident unknown)) necessitating expensive postexposure treatment.

The statewide distribution pattern of positive rabies cases shown in Figure 1 (page 6) may not be completely representative of rabies activity in the state; it may only reflect the distribution of samples submitted for testing. Almost all the samples submitted were due to some form of suspicious interaction between the animal tested and a human or domestic animal. As expected, skunks accounted for the majority of rabies positive animals in Kentucky. Unlike the states east of the Appalachian Mountains, Kentucky does not have a raccoon rabies strain epizootic. The laboratories tested 116 raccoons in 2001, and all were negative. However, the Centers for Disease Control and Prevention consider Kentucky at risk for the introduction of the raccoon rabies variant from West Virginia. Multiple federal and state agencies are actively engaged in preventing the spread of raccoon rabies westward from states in which it is already epizootic.

Reporting of Rabies Postexposure Prophylaxis

Beginning June 16, 1997, rabies postexposure prophylaxis (PEP) became a reportable treatment. This new surveillance activity was mandated in order to estimate how many patients in Kentucky receive this expensive treatment. Surveillance of PEP will allow the Department to follow trends in PEP administration, which would reflect any changes in the number of human exposures due to an

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MMWR Notice to Readers:**Shortage of Varicella and Measles, Mumps and Rubella Vaccines
Interim Recommendations from the Advisory Committee on Immunization Practices**

A temporary shortage of varicella (VARIVAX[®]) and combined measles, mumps and rubella (MMR) (M-M-R II[®]) vaccines in the United States has resulted from two voluntary interruptions to manufacturing operations by Merck & Co., Inc., the only U.S. manufacturer of these products. One interruption was attributed to modifications Merck made voluntarily in response to issues raised by the U.S. Food and Drug Administration (FDA) during a routine Good Manufacturing Practices inspection. The other was the result of scheduled modifications made to the manufacturer's facility, which took longer than expected to be completed and had a substantial impact on production during September—October 2001. Following the interruptions of production, vaccine supply rapidly declined at the end of 2001.

Varicella Vaccine

Although the duration of the varicella vaccine shortage is uncertain, Merck predicts that the shortage will be resolved by late spring or early summer 2002. The annual need for varicella vaccine in the United States is about 6 to 7 million doses or 500,000—583,000 doses per month. Because of supply decreases, by March 4, approximately 1.1 million doses were on back order for both public and private sectors. Merck estimates an average of 60 days to fill these orders. Meanwhile, shortages are expected nationwide.

**Interim ACIP Recommendations for Use
of Varicella Vaccine**

Varicella is a more severe disease among adolescents and adults; however, the highest incidence of disease is among elementary school aged-children^{1,2}. Until adequate supplies of varicella vaccine are available, ACIP recommends that all vaccine providers in the United States delay administration of the routine childhood varicella vaccine dose from age 12—18 months until age 18—24 months^{3,4}. If the shortage persists after delaying the dose at age 12--18 months and is of sufficient severity that further prioritization of vaccine use is needed, recommendations for use (highest to lowest priority) of Varivax[®] for susceptible persons are:

1. Vaccination of health-care workers, family contacts of immunocompromised persons, adolescents

aged ≥ 13 years, and adults and high-risk children (e.g., children infected with human immunodeficiency virus and children with asthma or eczema).

2. Vaccination of susceptible children aged 5--12 years, particularly children entering school and adolescents aged 11--12 years. States may elect to provide guidance on priority cohorts for vaccination.

3. Vaccination of children aged 2--4 years. Within this age group, states may elect to provide guidance on priorities (e.g., children attending child care centers) for vaccination.

Measles, Mumps and Rubella Vaccine

Although the duration of the shortage is uncertain, the manufacturer predicts that problems with the MMR vaccine supply should be resolved in 1--3 months. The annual need for MMR vaccine in the United States is about 13 million doses. The average number of MMR doses shipped during January—September 2001 was 943,000 doses; during October—November 2001, an average of 586,000 doses was shipped; during December 2001—February 2002, an average of 819,000 doses was shipped each month. As of March 4, a total of 1,077,670 doses was on back order for both the public and private sectors. As of February 28, 2002, the manufacturer projects that 5.6 million doses will be supplied during March—May 2002.

**Interim ACIP Recommendation for Use
of MMR Vaccine**

Two doses of MMR vaccine, separated by at least a month and administered on or after the first birthday, are recommended for children, adolescents, and adults who lack adequate documentation of vaccination or other acceptable evidence of immunity⁵. The first dose is recommended at age 12—15 months and the second dose at age 4—6 years. If providers are unable to obtain sufficient amounts of MMR vaccine to implement fully ACIP recommendations for MMR vaccination, ACIP recommends that they defer the second MMR dose. Because of the severity of measles in young children, providers should not delay administration of the first dose of the MMR series.

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MMWR Vaccine Notice

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Tracking and Recall

Records should be maintained for children who experience a delay in administration of either varicella or MMR vaccines so they can be recalled when vaccine becomes available. The latest information about vaccine supply issues is available at <http://www.cdc.gov/nip/news/shortages>.

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*—Courtesy of the Centers for Disease Control and Prevention
March 2002*

Rapid Response Team Conference Postponed

The Epidemiology Rapid Response Team annual conference, tentatively scheduled for May, has been postponed until this fall. It will be held September 11-12, 2002, at Lake Barkley State Resort Park in Cadiz.

A limited number of rooms has been reserved and will be held for conference participants until July 10. Participants are responsible for making their own reservations and are encouraged to do so by the July 10 date. Rates are \$66.60 for single rooms and \$77.52 for doubles. Contact the park at 270-924-1131 or, toll free at 1-800-325-1708, to make arrangements.

For additional information, contact Rebecca McCoy at 502-564-3261, extension 3585, or via e-mail at rebeccaj.mccoy@mail.state.ky.us.

MANAGING TOBACCO USE & DEPENDENCE

By

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Tobacco use remains the single leading cause of preventable illnesses and death in the United States and Kentucky.^{1,2} Tobacco use profoundly affects the health and welfare of Kentuckians: one of every three smokers will eventually die of smoking-related diseases.

The United States Public Health Service (USPHS) recommends that all health care clinicians, health plans, and health care institutions make tobacco dependence a top priority and implement the Clinical Practice Guideline, "Treating Tobacco Use and Dependence" (see www.ahrq.gov). The Clinical Practice Guideline is the result of a public-private consortium of experts who reviewed effective, evidence-based tobacco dependence treatments and practices and integrated this state-of-the-art information into recommendations for managing tobacco use and dependence.

The Guideline consists of both individual provider strategies and health care systems changes to manage tobacco use and dependence. According to the Guideline, the most effective tobacco dependence treatment is a combination of counseling and pharmacotherapy. There are now seven different effective medications and three types of counseling therapies shown to be particularly effective. (Box A.)

Box A. Effective Treatments for Managing Tobacco Use and Dependence

Effective Counseling and Behavioral Therapies

- Problem Solving and Skills Training
- Provision of Social Support as Part of Treatment
- Securing Social Support Outside of Treatment

Effective Pharmacotherapies for Cessation

- First-line Medications
 - Bupropion SR
 - Nicotine Gum
 - Nicotine Inhaler
 - Nicotine Nasal Spray
 - Nicotine Patch
- Second-line Medications
 - Clonidine
 - Nortriptyline

Source: Fiore et al. *Treating Tobacco Use and Dependence*. Clinical Practice Guideline. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. June 2000.

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Rabies in Kentucky—2000

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increase in rabid or suspected rabid animals. This may serve as an early warning of any rabies epizootics. It will also allow the Department to estimate the financial burden of this public health intervention. Both private and public reporters can use the standard reportable disease form (EPID 200). There is an area for PEP information on the second side of the form, which is designed to guide the user through questions that may be useful in determining if PEP is indicated.

For 2001, 88 PEP were reported on the required EPID 200 form; 59 reports were from 15 health departments, 26 reports were from 16 hospitals, 1 report was from a physician's office, and 2 reports were from unidentified senders (incomplete reporting form information.) A 1995 survey by the Division of Epidemiology determined that at least as many patients receive PEP from private providers as in health departments; therefore, there should be at least as many PEP reports from hospitals and physicians, but hospitals and physicians reported less than half as many PEP as health departments. The overall number of PEP reported is down from the 109 PEP reported in 2000. This may reflect an overall drop in the number of PEP administered, a drop in reporting compliance, or changes in policies on PEP administration in local health departments related to increased difficulty in obtaining the biologics.

Rabies PEP should not be administered without careful consideration of the exposure because it is expensive (\$1,000- 6,000/patient), time consuming for the patient and provider, not always pleasant, and not totally without adverse reactions. Additionally, since human rabies immune globulin is in short supply with occasional periods of unavailability, it should be reserved for those patients for which there is a true indication for administration. For the 88 patients for which PEP was appropriately reported, only 22 (25.0%) of the patients had any contact with an animal that tested positive for rabies, and only 4 of these exposures involved a bite from a rabid animal (1 dog, 3 bat.) The other 18 PEP in this group resulted from "possible exposure" to saliva from bats (5) or exposure to saliva from rabid dogs (16) and a kitten (1).

If people who were bitten and medical providers followed the legally mandated protocols of Kentucky Revised Statute 258, many of the PEP could be avoided. K.R.S. 258.065 requires all medical providers, parents

of children bitten, or adults bitten that don't require medical care, to report animal bites to the **local health department** within 12 hours of the incident. This provides an opportunity for local health department personnel to either quarantine the animal for observation or have it tested for rabies. If the incident is reported after a lengthy time delay, the chances of recovering the animal for testing or observation are remote. Victims of bites can adversely contribute to the outcome of the event by not capturing the animal or by improperly killing the biting animal. (The brain must remain intact for testing; gunshot to the head or clubbing are not acceptable methods.) In most cases the animal is either killed and disposed of before testing is available, or allowed to escape and not captured for observation or testing. Domestic animals can be quarantined and observed for signs of rabies and 60 (69.2%) of the 88 PEP incidents involved domestic animals. In only 17 (28.3%) of the 60 reported PEP incidents involving domestic animals (3 dogs, 1 cat) was an animal available for observation or testing. Only 4 animals (all bats) were captured and tested out of the 26 wildlife species.

In the 1995 survey and a 1999 review of PEP administered by health departments, only 2 patients each year were found to have a bite exposure from a proven rabid animal. In 2001, review of PEP reports found 4 patients with bite exposures from a proven rabid animal. Additionally, two people were inappropriately given PEP for squirrel bites; there is no evidence that squirrels are a risk for human rabies exposure in Kentucky. It appears that there has been little progress toward improving patient selection for PEP.

For more information on rabies or reporting of PEP, you may call the Division of Epidemiology and Health Planning at (502)564-3418 or toll free at (888) 9REPORT.

Notes & Reports

now available online

Epidemiologic Notes & Reports may be accessed on the Department for Public Health's website. To see the current issue, along with past and future issues, visit the web address:

<http://publichealth.state.ky.us/newsletters-pub.htm>

Access requires the Acrobat Reader Plug-In (free download).

Managing Tobacco Use & Dependence

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There are five individual provider strategies designed to be used as a brief intervention: Ask, Advise, Assess, Assist, and Arrange. (Box B.) Providers **Ask** patients about their current tobacco use status at every office or clinic visit. Then, they **Advise** tobacco users to quit, using clear, strong, personalized messages such as, "I think it is important for you to quit smoking now and I can help you." As part of the Advise step, clinicians are encouraged to discuss the link between smoking and physical symptoms, the health, social, and monetary effects of smoking cigarettes, the dangers of exposure to secondhand smoke, and the health benefits of quitting and instituting home smoking bans. Next, providers **Assess** by asking tobacco users if they are willing to quit right away or within the next 30 days. Users unwilling to quit are asked to consider reducing the number of cigarettes smoked and protecting nonsmoking family members and friends by not smoking in their homes and cars.

Box B. The Five "As" for Brief Interventions

ASK About Tobacco Use

- Identify and Document Tobacco Use Status for Every Patient at Every Visit

ADVISE To Quit

- In a Clear, Strong, and Personalized Manner Urge Every Tobacco User to Quit

ASSESS Willingness to Make a Quit Attempt

- Is the Tobacco User Willing to Make a Quit Attempt at This Time?

ASSIST in the Quit Attempt

- For the User Who is Willing to Quit, Use Counseling and Pharmacotherapy to Help Them Quit
- For the User Who is Unwilling to Quit, Use a Motivational Intervention

ARRANGE Follow Up

- Schedule Follow Up Contact, Preferably Within One Week After the Quit Date

Source: Fiore et al. *Treating Tobacco Use and Dependence. Clinical Practice Guideline*. Rockville, MD: U.S. Department of Health and Human Services. Public Health Service. June 2000.

When patients are willing to quit, providers **Assist** them in designing a plan and setting a quit date. The Assist step involves discussing: (a) the barriers to quitting and the personal triggers for smoking and (b) the addictive nature of nicotine and the benefits of pharmacotherapies for smoking cessation. Clinicians prepare patients for the likelihood of nicotine withdrawal symptoms such as tobacco cravings, headache, nausea, weight gain, anxiety, and depression. The last step is to **Arrange** for follow up contact either in person or via the telephone especially within the first week after the quit date.

The Guideline also recommends that every health care delivery system, including insurers, purchasers, and administrators, institute a consistent system for identifying, documenting, and

treating every tobacco user in every health care setting. To increase access to tobacco use and dependence treatment, all insurance plans should cover counseling and pharmacotherapy treatments identified as effective.

While implementing the USPHS Clinical Practice Guideline to help tobacco users quit is essential, other policy measures also are needed to promote cessation such as increasing the price of tobacco products and eliminating smoking in public places, worksites and government buildings. Higher cigarette prices result in fewer adults who smoke and fewer youth who will become established smokers.³⁻⁵ Smoke-free policies also protect nonsmokers and serve to prevent youth from initiating useage.⁶

Lexington Health United, an alliance of 15 central Kentucky health care agencies, the University of Kentucky Prevention Research Center, and the Kentucky School of Public Health are jointly sponsoring a conference on May 17, 2002, "Saving Lives and Money: Innovations in Managing Tobacco Use and Dependence." The conference will feature national speakers and discussion of the USPHS Clinical Practice Guideline. The conference audience will be health care providers, medical directors, health care system administrators, medical practice managers, and other professionals interested in learning state-of-the-art methods to manage tobacco use and dependence. For more information contact Todd Warnick @ (859) 288-2346.

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Cases of Selected Reportable Diseases in Kentucky

YTD Through February for:

Disease	2002	2001	5 year median
AIDS	30	50	36
Chlamydia	1532	1449	1177
Gonorrhea	608	619	571
Syphilis (Prim. and Sec.)	9	8	9
Group A Streptococcus	3	4	4
Meningococcal Infections	2	5	6
<i>Haemophilus influenzae</i> , invasive	1	0	2
Hepatitis A	9	5	6
Hepatitis B	5	10	5
E. coli O157H7	0	0	2
Salmonella	26	35	30
Shigella	33	47	26
Tuberculosis	15	11	11
Animal Rabies	2	2	5
Motor Vehicle Injury Deaths	130	121	121

Vaccine Preventable	2002-To Date	Total in 2001
Diphtheria	0	0
Measles	0	2
Mumps	1	3
Pertussis	10	86
Polio	0	0
Rubella	0	0
<i>Streptococcus pneumoniae</i>	3	28
Tetanus	0	0

Influenza Statistics For Confirmed Isolates Influenza Season (October-May)

Type	2001-2002 To March 15	2000-2001 Total #
A	133	65
B	2	58
Unknown	3	1

KENTUCKY REPORTABLE DISEASES AND CONDITIONS
Cabinet for Health Services
Department for Public Health

902 KAR 2:020 requires health professionals to **report** the following diseases **to the local health department** serving the jurisdiction in which the patient resides or to the Department for Public Health.

- | | | |
|---|---|--|
| <ul style="list-style-type: none"> <input checked="" type="checkbox"/> AIDS** ! Animal bites ① Animal conditions known to be communicable to man ☠ Anthrax Asbestosis ☠ Botulism, including infant ☠ Brucellosis Campylobacteriosis <input checked="" type="checkbox"/> Chancroid <input checked="" type="checkbox"/> Chlamydia trachomatis Cholera Coal workers' pneumoconiosis Cryptosporidiosis Diphtheria E. coli, O157:H7 E. coli, shiga toxin positive <input checked="" type="checkbox"/> Ehrlichiosis Encephalitis, California group Encephalitis, Eastern Equine Encephalitis, St. Louis ☠ Encephalitis, Venezuelan Equine Encephalitis, Western Equine Encephalitis, West Nile ① Foodborne outbreak/intoxication <input checked="" type="checkbox"/> Gonorrhea <input checked="" type="checkbox"/> Granuloma inguinale Haemophilus influenzae invasive disease | <ul style="list-style-type: none"> Hansen's Disease Hantavirus infection Hepatitis A ① Hepatitis B, acute, or in pregnant woman or child born in or after 1992 <input checked="" type="checkbox"/> Hepatitis C, acute <input checked="" type="checkbox"/> Histoplasmosis <input checked="" type="checkbox"/> HIV infection** Influenza virus isolates <input checked="" type="checkbox"/> Lead poisoning <input checked="" type="checkbox"/> Legionellosis Listeriosis <input checked="" type="checkbox"/> Lyme Disease <input checked="" type="checkbox"/> Lymphogranuloma venereum <input checked="" type="checkbox"/> Malaria Measles Meningococcal infection ① Mumps ☠ Mycotoxins-T2 Pertussis ☠ Plague Poliomyelitis Psittacosis ☠ Q fever Rabies, animal Rabies, human <input checked="" type="checkbox"/> Rabies post-exposure prophylaxis ☠ Ricin poisoning | <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Rocky Mountain spotted fever Rubella Rubella syndrome, congenital Salmonellosis Shigellosis Silicosis ☠ Smallpox ☠ Staphylococcal enterotoxin B ① Streptococcal disease, invasive Group A <input checked="" type="checkbox"/> <i>Streptococcus pneumoniae</i>, drug-resistant invasive disease Syphilis, primary, secondary early latent or congenital <input checked="" type="checkbox"/> Syphilis, other than primary secondary, early latent or congenital Tetanus ① Toxic shock syndrome <input checked="" type="checkbox"/> Toxoplasmosis ① Tuberculosis ☠ Tularemia Typhoid fever Vibrio parahaemolyticus Vibrio vulnificus ☠ Viral hemorrhagic fevers ① Waterborne outbreaks Yellow fever |
|---|---|--|

- ☠ **POSSIBLE INDICATOR OF BIOTERRORISM—REPORT IMMEDIATELY**
- REPORTING REQUIRED WITHIN 24 HOURS**- by telephone or FAX, followed by written report.
 - ① **REPORTING REQUIRED WITHIN 1 BUSINESS DAY**- by telephone or FAX, followed by written report.
 - REPORTING REQUIRED WITHIN 5 BUSINESS DAYS**
 - ! Report animal bites within 12 hours to the local health department in accordance with KRS 258.065.
 - ☠ Extraordinary number of cases of any disease or condition should be reported, within 1 business day.

Mail reports to the local health department or to the Department for Public Health, Division of Epidemiology and Health Planning, Mailstop HS1E-C, 275 East Main Street, Frankfort, KY 40621-0001.
 Reports shall include:

1. The disease or condition being reported
2. Patient's demographic information
3. Physician's (or reporting institution's/person's) name, address and telephone number
4. Clinical, epidemiological, and laboratory information pertinent to the disease

For additional information or to REPORT call 502-564-3418; 1-888-9REPORT (973-7678); or FAX 502-564-4015.

To report HIV/AIDS or obtain report forms in Louisville area – (Bullitt, Henry, Jefferson, Oldham, Shelby, Spencer, Trimble counties) call the HIV/AIDS Louisville Jefferson County Surveillance Program at 502-574-6574. In all other Kentucky counties contact the HIV/AIDS Branch at 502-564-6539. **NEVER REPORT AN HIV/AIDS CASE BY FAX MACHINE OR ANSWERING MACHINE.