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C.M.G. Buttery, M.D., M.P.H., Commissioner
Grayson B. Miller, Jr., M.D., Epidemiologist
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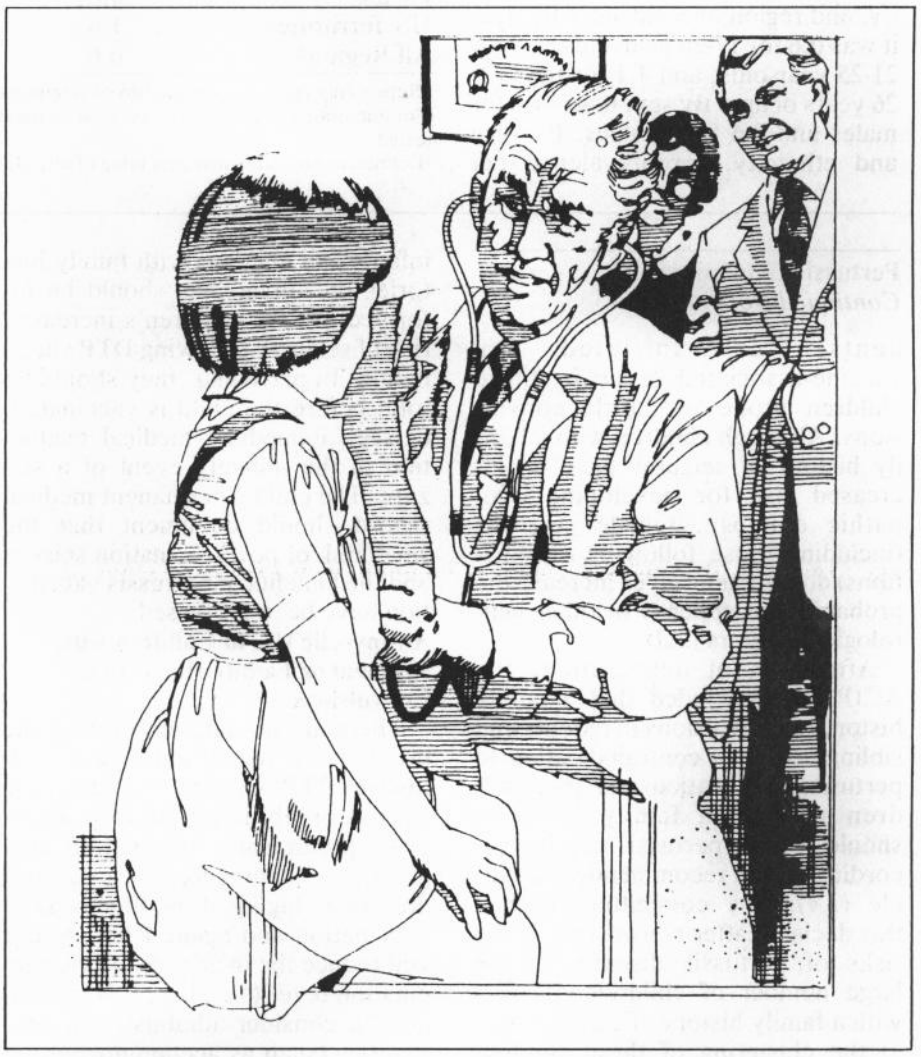
Supplementary recommendation of the Immunization Practices Advisory Committee (ACIP) of the U.S. Public Health Service

Pertussis Immunization with Family History of Convulsions



The Immunization Practices Advisory Committee (ACIP) has reviewed available data concerning the risks and benefits of pertussis vaccine for infants and children with a family history of convulsions. Based on this review, the ACIP does not believe that a family history of convulsions should be a contraindication to vaccination with diphtheria and tetanus toxoids and pertussis vaccine (DTP). In addition, the ACIP believes that antipyretic use in conjunction with DTP vaccination may be reasonable in children with personal or family histories of convulsions. Consequently, the following statement updates some of the previous recommendations regarding pertussis vaccine (*1*).

Vaccination of Children with Family Histories of Convulsions with Pertussis Vaccine

The risk of neurologic events after DTP vaccination is very small. Most neurologic events (primarily febrile seizures, but including nonfebrile seizures, encephalopathy, or other neurologic symptoms) that occasionally follow DTP vaccination occur in children without known risk factors. However, recent studies suggest that infants and children with a history of convulsions in first-degree family members (i.e., siblings and parents) have a 3.2-fold increased risk for neurologic events compared with those without such histories (CDC, unpublished data). Nevertheless, these children are still at very low risk for serious neurologic events following DTP vaccination. Convulsions within 3 days of DTP vaccination may be unrelated to vaccination, induced by vaccine compo-

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Trends in Human Immunodeficiency Virus Infection

Since October 1985, the U.S. Department of Defense has routinely tested civilian applicants for serologic evidence of infection with human immunodeficiency virus (HIV) as part of their preinduction medical evaluation (*1*). Results from the first 6 months of testing have been reported previously (*2,3*). Results for the first 15 months provide the opportunity to observe trends of infection in this population.

Between October 1985 and December 1986, 789,578 civilian applicants for military service were screened. Of these, 1,186 were confirmed as HIV-antibody positive by enzyme immunoassay and Western blot immunoelectrophoresis, for an overall rate of 1.5/1,000 individuals tested. Seroprevalence per 1,000 varied by age, sex, race and ethnicity, and region of residence. By age, it was 0.6 for 17-20 year-olds, 2.5 for 21-25 year-olds, and 4.1 for those ≥ 26 years of age. By sex, it was 1.6 for males and 0.6 for females. By race and ethnicity, seroprevalence per 1,000 was 0.8 for whites, 4.1 for blacks, 2.3 for Hispanics, 1.0 for American Indians or Alaskan Natives and Asian or Pacific Islanders. Table 1 shows the seroprevalence among civilian applicants by region of residence.

During the 15-month observation period, the seroprevalence did not change significantly, either in the aggregate or when analyzed by age, sex, race and ethnicity (Figure 1), or

Table 1. Prevalence of HIV antibody* among civilian applicants for military service, by age group and region of residence— October 1985-December 1986

	Age Group (Years)			
Region†	17-20	21-25	≥26	All Ages
New England	0.4	1.0	3.8	0.9
Middle Atlantic	0.7	4.6	10.0	2.9
EN Central	0.4	1.8	1.9	0.9
WN Central	0.2	1.0	1.8	0.6
South Atlantic	0.9	3.4	5.4	2.1
ES Central	0.4	1.9	1.3	0.9
WS Central	0.6	2.7	3.0	1.6
Mountain	0.3	1.5	1.9	0.9
Pacific	0.8	1.5	4.0	1.5
US Territories	1.6	6.3	12.3	5.8
All Regions	0.6	2.5	4.1	1.5

*Repeatedly reactive enzyme-linked immunosorbent assay (ELISA) test confirmed by Western blot immunoelectrophoresis; reported as the number of antibody-positive applicants per 1,000 tested.

†Defined in notifiable diseases table (Table III).

Pertussis Immunization

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nents, or initiated by vaccine-associated fever in those children prone to febrile convulsions. Although children with a family history of seizures have an increased risk for developing idiopathic epilepsy, febrile seizures (including those following vaccinations) do not themselves increase the probability of epilepsy or other neurologic disorders (*2,3*).

After careful deliberation, the ACIP has concluded that a family history of convulsions in parents and siblings is not a contraindication to pertussis vaccination and that children with such family histories should receive pertussis vaccine according to the recommended schedule (*1,4*). The committee reached this decision after considering 1) the risks of pertussis disease, 2) the large number of children (5%-7%) with a family history of convulsions, 3) the clustering of these children within families, and 4) the low risk of convulsions following pertussis vaccination (*1-3,5*).

The ACIP believes that parents of infants and children with family histories of convulsions should be informed of their children's increased risk of seizures following DTP vaccination. In particular, they should be told, before the child is vaccinated, to seek immediate medical evaluation in the unlikely event of a seizure. The child's permanent medical record should document that the small risk of postvaccination seizure and the benefits of pertussis vaccination have been discussed.

Antipyretic Use in Children with Personal or Family Histories of Convulsions

There are no data on whether the prophylactic use of antipyretics following DTP vaccine can decrease the risk of febrile convulsions. However, preliminary information suggests that acetaminophen given at a dose of 15 mg/kg at the time of DTP vaccination and again 4 hours later will reduce the incidence of postvaccination fever (*6*). Thus, it is reasonable to consider administering antipyretics (such as acetaminophen) at age-appropriate doses at the time of vaccination and every 4 to 6 hours for 48 to 72 hours to children at higher risk for seizures than the general population.

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Reprinted from MMWR 1987; 36:281-2.

geographic region. However, seroprevalence among white males showed a small but significant decline of 0.02/1,000 applicants tested per month ($p = 0.016$ by Chi Square test for trends in proportions using a logistic regression linear model).

Editorial Note: AIDS cases reported to CDC continue to increase*. However, because of the lengthy incubation period of AIDS (*4*), these cases represent infection occurring at least several years prior to the report of disease. There has been little information to indicate current trends in HIV infection. Analysis of the results of the testing of civilian applicants thus far basically shows neither an increase nor a decrease in infection level for the group as a whole or for individual subgroups. The significance of this apparent absence of change in antibody prevalence during the 15-month period studied is not yet clear.

Volunteers for military service, who are verbally screened by the recruiting official prior to arrival at the medical evaluation center, are not fully representative of the overall population in that they underrepresent the three groups in the United States with the highest prevalence of HIV infection†. Moreover, applicants do not equally represent all socioeconomic and demographic groups in the population. A growing awareness of the military serologic screening program may have increased self-deferral by persons who are HIV-antibody positive or who feel they may have been exposed to the virus. If so, this could have masked an increased frequency of infection in the population from which the applicants are drawn.

Monitoring trends in infection among civilian applicants for military service as well as among blood donors§ remains important. It is also critical to compare trends in infection among these volunteer groups with similar trends among groups not affected by self-selection bias. One such surveillance approach, in which anonymously tested sample populations without AIDS-like disease are monitored at participating hospitals, has been initiated recently by CDC. Trends in exposure risks among seropositive individuals should also be monitored to assess possible changes in the relative frequency of the various modes of transmission. Follow-up interviews of a small number of seropositive applicants have found a high proportion with typical risk exposures for AIDS (*5*). CDC is collaborating with the U.S. Department of Defense, the National Cancer Institute of the National Institutes of Health, and certain state and local health departments to develop a systematic follow-up evaluation of seropositive civilian applicants in selected cities and states.

**An average of 38.3 AIDS cases per day were reported for the period October-December 1986, compared with an average of 26.3 per day for the period October-December 1985.*

†Active intravenous drug abusers, homosexual men, and hemophiliacs.

§Long-term data are not yet available for this group.

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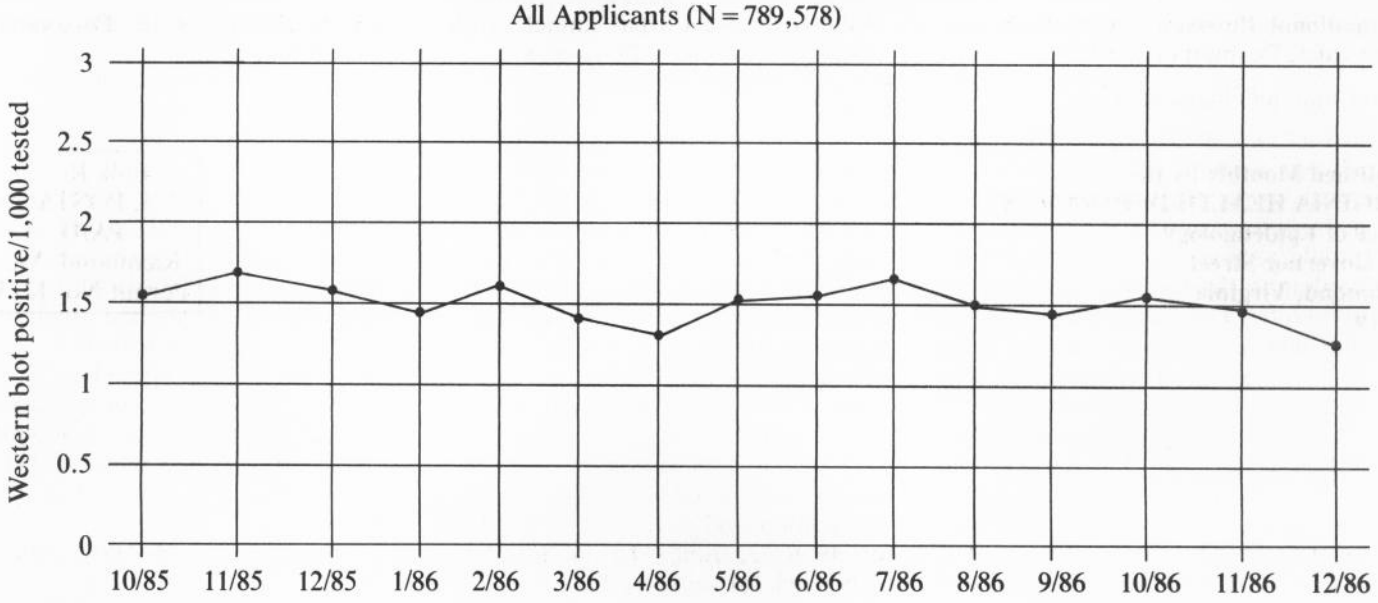
Adapted from MMWR 1987; 36:273-276.

Figure 1. Human immunodeficiency virus antibody among civilian applicants, by month—United States, October 1985-December 1986



Cases of selected notifiable diseases, Virginia, for the period June 1, through June 30, 1987

Disease	State					Regions				
	This Month	Last Month	Total to Date 1986	Total to Date 1987	Mean 5 Year To Date	This Month N.W.	N.	S.W.	C.	E.
Measles	1	0	49	1	21	0	0	0	0	1
Mumps	5	43	25	56	23	3	1	0	1	0
Pertussis	3	2	16	37	16	0	0	0	1	2
Rubella	0	0	0	1	3	0	0	0	0	0
Meningitis—Aseptic	4	8	82	64	68	1	0	0	3	0
*Bacterial	10	20	135	94	130	2	4	2	2	0
Hepatitis A (Infectious)	6	25	63	144	76	0	1	5	0	0
B (Serum)	28	49	217	222	249	2	9	15	2	0
Non-A, Non-B	5	2	37	24	44	0	2	2	0	1
Salmonellosis	194	203	479	713	554	28	44	28	51	43
Shigellosis	12	9	32	69	65	1	8	0	0	3
Campylobacter Infections	57	52	229	244	216	10	12	7	20	8
Tuberculosis	54	48	181	213	226	2	19	4	10	19
Syphilis (Primary & Secondary)	26	28	203	135	236	2	2	2	15	5
Gonorrhea	1120	1191	8742	7346	9370	—	—	—	—	—
Rocky Mountain Spotted Fever	3	0	17	3	16	1	1	0	1	0
Rabies in Animals	46	35	98	208	194	8	8	3	17	10
Meningococcal Infections	6	3	50	45	42	3	0	2	1	0
Influenza	2	5	3910	1204	1417	0	0	0	0	2
Toxic Shock Syndrome	0	0	0	0	4	0	0	0	0	0
Reyes Syndrome	0	0	0	0	3	0	0	0	0	0
Legionellosis	2	1	6	5	9	0	0	2	0	0
Kawasaki's Disease	4	2	15	14	16	0	0	1	0	3
Acquired Immunodeficiency Syndrome	14	23	90	106	—	0	7	0	2	5

Counties Reporting Animal Rabies: Albemarle 1 cat; Chesterfield 4 raccoons; Essex 7 raccoons; Fairfax 1 fox, 3 raccoons; Goochland 1 raccoon; Hanover 7 Raccoons; Henrico 2 raccoons, 2 skunks; King & Queen 1 raccoon; Loudoun 2 raccoons; Louisa 1 skunk; Powhatan 1 raccoon; Prince William 2 foxes; Rockingham 1 skunk; Shenandoah 1 raccoon, 3 skunks; Stafford 1 raccoon; Washington 3 skunks; Westmoreland 1 cat, 1 raccoon.

Occupational Illnesses: Pneumoconioses 43; Asbestosis 34; Carpal tunnel syndrome 25; Hearing loss 18; Poisoning, chemical 3; Dermatitis 2; Silicosis 1.

*other than meningococcal

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