EPIDEMIOLOGY BULLETIN

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INFLUENZA ARRIVES IN ALASKA

During the third week of January 1988, a fourteen year-old Cordova boy presented to his physician with typical flu-like symptoms. A throat swab for viral isolation was positive for Influenza A/Leningrad/360/86(H3N2). Since that time, positive influenza cultures have been obtained from four other individuals. Three isolates were identified as A/Leningrad/360/86 and one has not yet been fully characterized. Two isolates were from the Anchorage area and two from Fairbanks. The antigenic variant A/Sichuan/2/87(H3N2) which is circulating in some parts of the US and type B influenza have not been reported this year in Alaska.

Health-care providers should be aware of the following recommendations for use of the anti-viral drug amantadine for controlling outbreaks of type A influenza and for prophylaxis or treatment of unprotected patients (source MMWR 1987;36:378-380,385-7):

AMANTADINE PROPHYLAXIS RECOMMENDATIONS

Although amantadine is not a substitute for vaccination, it is recommended for prophylaxis under specific circumstances, particularly for control of presumed influenza A outbreaks in institutions housing high-risk persons. To reduce the spread of infection, the drug should be given as early as possible after recognition of an outbreak. Contingency planning for influenza outbreaks in institutions is needed to establish specific steps for rapidly administering amantadine to residents of chronic-care facilities when appropriate. This should include plans to obtain physicians' orders on short notice. When the decision is made to give amantadine for outbreak control, it should be administered to all residents of the affected institution, whether or not they received influenza vaccine the previous fall. Dosage recommendations and precautions (see below) and in the drug's package insert should be followed. To reduce spread of virus and to minimize disruption of patient care, it is also recommended that amantadine prophylaxis be offered to unvaccinated staff who care for high-risk residents of chronic-care institutions or hospitals experiencing a presumed influenza A outbreak. For prophylaxis, amantadine should be taken each day for the duration of influenza activity in the community.

Amantadine prophylaxis is also recommended in the following situations:

1) As an adjunct to late immunization of high-risk individuals. It is not too late to immunize even when influenza A is known to be in the community. However, since the development of an antibody response following vaccination takes about 2 weeks, amantadine should be used in the interim. The drug does not interfere with antibody response to the vaccine.
2) To reduce spread of virus and to maintain care for high-risk persons in the home setting. Persons who have not been appropriately immunized and who care for high-risk persons in home settings (e.g., household members, visiting nurses, volunteer workers) should also receive amantadine for prophylaxis during influenza A virus outbreaks in their community.
3) For immunodeficient persons. To supplement protection afforded by vaccination, chemoprophylaxis is also indicated for high-risk patients who may be expected to have poor antibody response to influenza vaccine (e.g., those with severe immunodeficiency).
4) For persons for whom influenza vaccine is contraindicated. Chemoprophylaxis throughout the influenza season is appropriate for those few high-risk individuals for whom influenza vaccine is contraindicated because of anaphylactic hypersensitivity to egg protein.

Amantadine can also be used prophylactically in other situations (e.g., for unimmunized members of the general population who wish to avoid influenza A illness). This decision should be made on an individual basis.

THERAPY

Although amantadine has been shown to reduce the severity and shorten the duration of influenza A illness in healthy adults, there have been no well-controlled clinical studies examining the efficacy of amantadine therapy in preventing complications of influenza A in high-risk persons. Nevertheless, because of the potential benefits, amantadine should be considered for high-risk patients who develop an illness compatible with influenza during known or suspected influenza A activity in the community. The drug should be given within 24-48 hours of onset of illness and should be continued until 48 hours after resolution of signs and symptoms.

DOSAGE AND PRECAUTIONS FOR THE USE OF AMANTADINE

In determining whether or not to use amantadine for prophylaxis or treatment of individual patients, the following information should be considered:

1) In controlled studies, 5%-10% of healthy young adults taking amantadine at the standard adult dose of 200 mg per day have reported side effects including nausea, dizziness, insomnia, nervousness, and impaired concentration. These side effects are usually mild and cease soon after amantadine is discontinued.
2) Amantadine is not metabolized and is excreted unchanged in the urine by glomerular filtration and tubular secretion. Because of the decline in renal function associated with normal aging, it is recommended that the daily dose for persons >= 65 years of age not exceed 100 mg. When amantadine is administered to patients with impaired renal function, the dose should be reduced (see package insert). Because recommended dosages for persons with renal impairment may provide only a rough estimate of the optimal dose for a given patient, careful clinical observation is needed for such individuals so that adverse reactions can be recognized promptly and the dose reduced or the drug discontinued if necessary. Since amantadine is not metabolized, toxic levels can occur when renal function is sufficiently impaired.
3) Persons with an active seizure disorder may be at increased risk for seizures when given amantadine at a dose of 200 mg daily. Although there are limited data regarding the use of amantadine in persons with seizure disorders, currently available data suggest that any risk of increased seizure activity in such persons might be reduced by using a lower dose of the drug.
4) The use of amantadine in children <1 year of age has not been adequately evaluated. The approved dosage for children 1-9 years of age is 4.4-8.8mg/kg/day, not to exceed 150 mg/day. Although further studies to determine the optimal dosage of amantadine for children would be desirable, physicians should consider prescribing the lower range of the approved dosage to reduce the risk of toxicity.

SURVEILLANCE ACTIVITIES

Physicians and other health-care providers are encouraged to submit throat swabs for viral isolation to the Northern Regional Laboratory. Continued surveillance is important to identify circulating strains of influenza virus and to monitor their spread within the State. Although the number of Anchorage elementary school children absent with flu-like illness has increased during the past two weeks, there is no other indication of widespread influenza activity in Alaska. Outbreaks of upper respiratory illness or suspected influenza cases should be reported to Sue Anne Jenkerson, R.N.C., M.S.N., F.N.C.; Mike Beller, M.D.; Mike Jones, M.D. or John Middaugh, M.D., Section of Epidemiology, Anchorage, 561-4406.

Reported by Dr. Larry Ermold, Cordova; Don Ritter, Northern Regional Laboratory.