CD Summary

September 17, 1996
Vol. 45, No. 19

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PREVENTION OF LA GRIPPE

EARTH WITNESSED two global human catastrophies in 1918 — World War I and the visit of the Spanish Lady. Although warfare continues to plague human societies even to this day, the Spanish Lady remains buried with her 20 million victims. The genetic composition of this H1N1 virus conferring such a degree of infectivity and virulence, as manifested by the deaths of the most healthy and productive members of society, remains an enigma for virologists. Recently, a team of scientists was dispatched to Spitsbergen, a Norwegian island far above the Arctic Circle, to exhume her victims from the permafrost in an attempt to recover her for genetic studies. A successful recovery would enhance our ability to prevent a future pandemic of such awesome proportions. In the meantime, we have dealt with the repeated assaults of her genetically inferior descendants. This issue will deal with the coming battle and consider the strategies of the warring combatants with the backdrop of the Advisory Committee on Immunization Practices (ACIP) recommendations for the 1996-97 influenza season.

PRINCIPAL CHANGES

The first change is the incorporation of a new H3N2 component (A/Wuhan/359/95-like) into the trivalent vaccine for 1996-97. Older vaccines should not be used. The second change concerns the extension of the optimal time for influenza vaccination campaigns for persons in high-risk groups to include the first two weeks in October.

THE *VIRAL* PERSPECTIVE

We will invade the northern hemisphere beginning in late November, taking advantage of major travel routes. All three armies will be mobilized for this battle. The H3N2 A team will lead the advance having the advantage of a genetic drift. The H1N1 A team and the B team will provide support where needed. Skirmish lines will be established in congested urban areas, and we will subsequently invade the rural towns and villages. In keeping with our manifest destiny, initial contacts will be made with vulnerable children and healthy adults in order to access and cull their weak and infirm loved ones, including family members and social contacts. Ironically for our victims, care givers, employees, volunteers, and visitors will be utilized as Trojan Horses to serve as sources of infection and allow us to gain access to the protected susceptibles confined in hospitals, nursing homes, assisted-care centers, retirement centers, and homes. Their loss will not jeopardize future generations of either species.

Obfuscation, subterfuge and stealth will be our passwords. The unwary and those with a strong sense of immortality will fall victims by virtue of our ability to spread in respiratory droplets and nasopharyngeal secretions up to 24 hours before our presence is suspected following onset of illness, and even more so by means of those with completely silent infections. The cocirculation of our respiratory micobial cousins will add to the state of confusion and allow us to escape detection by even the most astute diagnosticians. If needed, these microbial allies can be employed to deliver the coup de grace. The resulting chaos will reduce confidence in vaccination as an effective preventive measure and facilitate our advance. A-team members will only be temporarily deterred by chemical warfare. The B team is immune to such weapons. Given our tactics and transmissibility, together with human gaps in vaccination programs, victory is assured.

Our primary targets are:

- persons 65 years of age or older, regardless of health status;
- residents of nursing homes and other chronic-care facilities;
- adults and children with chronic disorders of the pulmonary or cardiovascular systems, including children with asthma;
- adults and children who have required regular medical follow-up or hospitalization during the preceding year because of chronic metabolic diseases (including diabetes mellitus), renal dysfunction, hemoglobinopathies, or immunosuppression (including immunosuppression caused by medications); and
- children and teenagers (6 months-18 years of age) who are receiving long-term aspirin therapy.

Our secondary targets are:

- physicians, nurses, and other personnel in both hospital and outpatient-care settings;
- employees of nursing homes and chronic-care facilities who have contact with patients or residents;
- providers of home care to persons at high risk (e.g., visiting nurses and volunteer workers);
- household members (including children) of persons in high-risk groups; and
- all other susceptibles, especially those engaged in essential community services.

THE *HUMAN* PERSPECTIVE

Global surveillance has revealed cocirculation of both type A subtypes and of B strains during the recent winter season in the southern hemisphere. Type A H3N2 predominated there and can be anticipated to do the same here. Recent influenza vaccines have been well matched to circulating viruses and will provide the maximum degree of protection against our three adversaries.

CD Summary (ISSN 1058-7888) published biweekly, free of charge, by the Oregon Health Division, a part of the Dept. of Human Resources.
800 NE Oregon St., Portland, Oregon 97232
Second Class Postage paid at Portland, Oregon.
Postmaster—send address changes to:
CD Summary, 800 NE Oregon St., Suite 730, Portland, OR 97232.

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Portland, Oregon

Our strategy to minimize morbidity, mortality and monetary losses due to influenza entails timely vaccination of persons at high risk of complications (viral primary targets above) as well as those who might serve as a sources of infection for these individuals (viral secondary targets above). This dual approach is necessary insofar as our current vaccine is most effective in preventing influenza in the immunologically healthy members of our community and much less so among the immunologically impaired. Oregonians can be proud of raising vaccination levels of persons 65 years of age and older from 48% in 1991 to 71% this past season, but this still leaves a large number of our high-risk citizens without protection. Pneumonia and influenza together rank as the sixth leading cause of death among all age groups and the fifth leading cause among citizens 65 years old and older. In 1995, pneumonia and influenza resulted in the deaths of 850 Oregonians.

The trivalent vaccine will contain A/Texas/36/91-like (H1N1), A/Wuhan/359/95-like (H3N2) and B/Beijing/184/93-like hemaglutinin antigens. For the H3N2 and B components, vaccine manufacturers will use the antigenically equivalent strains A/Nanchang/933/95 (H3N2) and B/Harbin/07/94 because of their growth properties. Recommended vaccine products and dosages by age group remain unchanged from last year (See table).

The *optimal* time for organized vaccination campaigns for persons in high-risk groups has been extended to include October 1 through mid-November. However, so that no opportunity is lost, persons at high risk who are seen for routine care as early as September should also be offered the vaccine. Vaccine should be offered even after influenza virus activity is documented, i.e., throughout the flu season. As long as influenza is prevalent, it's not too late. No opportunity to vaccinate susceptibles should be lost.

Vaccine Dosage By Age Group

Age Group	Product	Dosage	Doses	Route
6-35 mos.	Split only	0.25 ml	1 or 2*	IM
3-8 yrs.	Split only	0.50 ml	1 or 2*	IM
9-12 yrs.	Split only	0.50 ml	1	IM
>12 yrs.	Whole or Split	0.50 ml	1	IM

*First-time vaccinees should receive two doses, at least one month apart.

SOURCES OF INFORMATION

The ACIP recommendations were published this year on May 3 in the MMWR publication Prevention and Control of Influenza (Vol.45, No. RR-5). Copies are available on the Internet (http://www.cdc.gov and ftp://ftp.cdc.gov) and by calling (503-731-4020) or faxing (503-731-4083) the Immunization Program. Informational packets assembled by members of the Adult Immunization Coalition are available to health care providers upon request. Additional informational items, including vaccine information sheets, brochures and fact sheets, may also be requested by interested parties.

FLU SURVEILLANCE IN OREGON

Effective October 1, the Oregon Public Health Laboratory (OPHL) will offer influenza testing without charge for throat wash specimens. Throat washing kits will be available from the OPHL stockroom (503-229-5882) and from most local health departments. Specimens must be clearly marked **"rule out influenza"** on the requisition form. For optimum results, specimens should be collected within 72 hours of onset. If transit time to the OPHL will exceed 24 hours, the specimen should be sent in a cold pack (not frozen).

A Note for Travel Clinicians

DUE TO THE PRECAUTIONARY withdrawal of many lots of immune globulin (IG) products by Centeon™, the existing shortage of IG for intramuscular injection has become more acute, and it is not expected to improve for at least 6 months. However, it is anticipated that IG needs can be met if hepatitis A vaccine (rather than IG) is used for *preexposure* prophylaxis of persons ≥2 years of age. IG should still be used for postexposure prophylaxis, and for travelers who are <2 years of age or those who are departing <2 weeks after vaccination can be given.