Influenza Epidemic or Pandemic?
Time to Roll Up Sleeves, Vaccinate Patients, and Hone Osteopathic Manipulative Skills

For primary care physicians practicing in temperate regions of the United States, winter heralds the “flu season.” And, we know that influenza epidemics can be deadly. During the period between 1990 and 1999, the average annual rate was 36,000 deaths attributed to influenza and its complications. Moreover, influenza viruses are responsible for worldwide increased illness and death rates from complications of the flu.

Although no age group escapes influenza, children have the highest rates of infection. Persons older than 65 years and persons who have increased risk for complications due to chronic medical conditions, however, have the highest rates of serious illness and death. Fortunately, given these statistics, we have in our armamentarium a primary means—vaccination—to prevent influenza and its serious and sometimes fatal complications.

In its 2004 recommendations, the Advisory Committee on Immunization Practices (ACIP) includes new or updated information regarding:

- influenza vaccine for children aged 6 to 23 months;
- vaccination of healthcare workers with live, attenuated influenza vaccine (LAIV);
- personnel who may administer LAIV;
- equivalent strains that may be used in the manufacturing of several 2004–2005 trivalent inactivated vaccine virus strains;
- the assessment of vaccine supply; and
- the timing of influenza vaccination.

The ACIP recommends the following groups as primary targets for annual vaccination:

- populations such as persons older than 65 years, children aged 6 to 23 months, pregnant women, and persons of any age with certain chronic medical conditions who are at increased risk for influenza-related complications;
- persons aged 50 to 64 years, a group that has an elevated prevalence of certain chronic medical conditions; and
- persons such as healthcare workers and household contacts who live, care for, or have frequent contact with persons at high risk and who can transmit influenza to those persons at high risk.

Further, the ACIP suggests such strategies as reminders and recall systems and standing orders to improve vaccine coverage among persons younger than 65 years who are at increased risk for flu-related complications among all racial and ethnic groups, among blacks and Hispanics older than 65 years, among children aged 6 to 23 months, and among healthcare workers.

Influenza viruses also can cause pandemics, during which rates of illness and death from influenza-related complications such as pneumonia can increase worldwide. In fact, during the last week of August, The New York Times and other news media announced that the US Department of Health and Human Services had drafted a proposal for planning and preparedness to respond to a flu pandemic. (The draft is available at http://www.hhs.gov/nvpo/pandemicplan/finalpandemic-core.pdf.)

The drafting of a preemptive plan for a global outbreak of influenza was prompted in part by the experience with anthrax exposure and severe acute respiratory syndrome. The Bush Administration warns that the death toll in the United States might reach 207,000 if an influenza pandemic were to hit.

“A pandemic virus will likely be unaffected by currently available flu vaccines that are modified each year to match the strains of the virus that are known to be in circulation among humans around the world,” according to Tommy G. Thompson, secretary of Health and Human Services. Each year, currently available flu vaccines are modified to match virus strains that are known to be in circulation among humans globally. Of concern is that such strains will likely be ineffective against a pandemic virus. Of primary concern, however, is the time required to produce a vaccine against a new virus strain, possibly one that is created by genes of the A(H5N1) strain of avian influenza combining with the genes of a human influenza strain.

Yes, vaccination is the cornerstone of prevention and treatment of influenza and its serious complications. And, antiviral medications are an effective adjunct to the vaccines we administer to our patients. But, as osteopathic physicians, we have another effective adjunctive mode of treatment—osteopathic manipulative medicine.
We have a precedent in our own history—the success of osteopathic care of patients with influenza during the pandemic of 1918. In a paper, the first admitted and read before an “old school” medical convention, R. Kendrick Smith, MD, DO, presented statistics showing the “osteopathic conquest of disease in which medicine has failed.”

Dr Smith reported that mortality among a total of 110,120 patients with influenza treated by the 2445 members who reported “authenticated detailed case reports” to the American Osteopathic Association was 0.25%. Mortality due to influenza in patients receiving traditional medical care, however, was ultraconservatively estimated at 5% to 6%. Among patients with pneumonia treated medicinally, mortality was estimated at 33%, and even as high as between 68% and 78% in some large centers. The death rate due to pneumonia among 6258 patients cared for by osteopathic physicians was 10%.

Unfortunately, our profession has a dearth of clinical studies to support the benefits of osteopathic manipulative treatment (OMT) for patients with pneumonia. One group of investigators led by Donald R. Noll, DO, however, has looked at the benefits of OMT for hospitalized elderly patients with acute pneumonia. Patients receiving a standardized OMT protocol had a significantly shorter duration of intravenous antibiotic treatment and a shorter hospital stay than the group receiving a sham protocol.

The JOURNAL certainly would like to see submissions reporting the findings of more such studies conducted—ideally at multiple sites to ensure a larger study population—and submitted for publication. But please don’t wait for an epidemic, or worse, a pandemic, to undertake such outcomes-based research. Let’s provide our patients with the benefits of OMT diagnostic and palpatory skills everyday!

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References

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