

Preparing Your Office for an Infectious Disease Epidemic

If your practice doesn't have a written preparedness plan, now is the time to develop one.

Charles W. Mackett III, MD, FAAFP

Pandemic influenza is potentially the most catastrophic infectious disease epidemic family physicians may face. For years, World Health Organization experts worried about the pandemic risk of the resurgent H5N1 avian influenza, but the recent outbreak of H1N1 influenza (swine flu) in Mexico and the United States reinforced the need for family physicians to be prepared.¹ A repeat of the Great Pandemic of 1918 ("Spanish Flu"), in which the CDC estimates that 50 million people died, would overwhelm every family physician's office. Potentially effective viral neuraminidase inhibitors such as oseltamivir and zanamivir are already in short supply, and pre-pandemic vaccines are not yet commercially available. Production of a pandemic vaccine, if needed, would take six to nine months. Critical shortages of equipment, supplies and oxygen would be likely in our "just in time" and financially ailing global economy, and transportation and essential services could be severely limited.

Family physicians play a critical role in the detection, prevention and management of an infectious disease epidemic. If you don't have a detailed plan for responding to a complex medical emergency of this magnitude, now is the time to develop one. Fortunately, the underlying preparedness principles are the same regardless of whether a practice is preparing for pandemic influenza, severe acute respiratory syndrome (SARS), extensively drug resistant tuberculosis (XDR TB) or bioterrorism. The purpose of this article is to help you prepare your office to function effectively through an infectious disease epidemic. Numerous resources are available to help you develop an office preparedness plan (see "Resources," below). Your

plan should address the following issues in writing so that it can be easily shared with others in the practice and accessed when and where the information is needed:

- Education and training for both patients and staff,
- Systems to triage, cohort, diagnose and treat patients,
- Availability of equipment and supplies,
- Protection of staff, non-epidemic patients and families,
- Communication with staff, patients and consultants,
- Coordination with local and state public health authorities,
- Business continuity,
- Recovery and reconstitution of the office practice.

In the end, all preparedness plans must be flexible because no one can predict with certainty which infectious disease epidemics will confront us let alone the clinical epidemiology, societal upheaval and the unique challenges to patients those epidemics will bring. In the case of pandemic influenza, family medicine offices will need to prepare for successive waves of illness lasting up to three years. Experts fully expect H1N1 influenza to resurface later this fall.

As you begin to formulate your plan, these are among the issues you should consider:

Be informed. Family physicians must regularly monitor news outlets and public health Web sites to stay aware of potential infectious threats. Epidemic surveillance and detection requires that family physicians familiarize themselves, their staffs and their patients with the case definitions and the travel and exposure histories of suspected emerging pathogens. This means actively monitoring or signing up for e-mail delivery of federal,

About the Author

Dr. Mackett is an associate professor and executive vice chairman of the Department of Family Medicine at the University of Pittsburgh Medical Center in Pittsburgh, Pa. Author disclosure: nothing to disclose.

state and local alerts regarding potential natural or man-made epidemics.

Be vigilant. Ultimately, you and your staff must maintain a high index of suspicion when evaluating all patients who present with acute respiratory illness. Every effort should be made to halt the spread of infection. Early identification, triage and isolation (physical or by mask) of patients with acute respiratory illness offers the best protection for staff and non-infected patients. Scrupulous infection control, cough etiquette, respiratory and hand hygiene, and the appropriate immunization and treatment of patients and office staff are essential if offices are to avoid accelerating the epidemic, as happened with SARS in 2003. Staff should routinely “wash in and wash out” of every patient encounter; ensure the proper use of masks, personal protective equipment and standard precautions; and provide “flu bags” (mask, disposable facial tissues and hand sanitizer) to all potentially infected patients.

As much as possible, you should separate epidemic patients from other patients. This may mean modifying standard scheduling practices or patient flow routines. Staff, equipment and disposable supplies should be dedicated for use with these patients, and their contacts should be monitored and isolated appropriately. Offices must be thoroughly familiar with indicated diagnostic tests and the safe collection, handling and transport of specimens to appropriate laboratory facilities. More frequent cleaning and the adequate disposal of hazardous waste will be critical.

Be ready. The importance of business continuity planning, and staff management in particular, cannot be overemphasized and must be addressed early in the planning process. First, establish clear expectations that staff will work during the crisis; the epidemic cannot be controlled if able-bodied health care workers stay home. Commitments to protect staff and non-punitive, supportive sick leave policies may mitigate absenteeism. This may involve developing a mechanism to diagnose, treat and support exposed employees and establishing return-to-work guidelines and screening. You may need to cross-train staff to perform and maintain essential functions. Plan to use recovered staff and volunteers, possibly retirees, if needed to keep the office open. Contact vendors to ensure the availability of critical equipment and supplies, and identify alternative suppliers that you can call on as necessary. Work with health plans, insurers, banks and creditors to streamline billing processes, ensure cash flow and continue the timely payment of employees. Anticipate the need for behavioral health services among patients, staff and their families.

Be accessible. You must also take steps to meet the potentially enormous surge in demand that an infectious disease epidemic could create. These might involve contacting patients to reschedule or postpone routine services, such as annual physicals, blood pressure checks and screening lab work. Calls from the “worried well” may inundate the practice in advance of the actual epidemic; this happened in India in early 2006 when H5N1 avian

influenza was first reported in local poultry populations. Plan to use telephone triage and electronic communication as much as possible to ensure that appointments are available for the patients who need them most.² Be prepared to prioritize distribution of appropriate anti-viral medications, antibiotics and vaccines if and when they are made available.³ Close coordination with local and state public health authorities will

ONLINE RESOURCES

The AAFP’s online resources on H1N1 flu (<http://www.aafp.org/online/en/home/clinical/disasterprep/swine-flu.html>) include information about the outbreak as well as links to tools for pandemic preparedness planning, such as the AAFP’s “Checklist to Prepare Doctors’ Offices for Pandemic Influenza” and “Business Planning Checklist to Prepare Family Medicine Offices for Pandemic Influenza.”

Additional resources are available at these Web sites:

American Academy of Family Physicians

<http://www.aafp.org/online/en/home/clinical/disasterprep/pandemicflu/mdresources.html>

Centers for Disease Control and Prevention

<http://www.cdc.gov/flu/h1n1flu>

U.S. Department of Health & Human Services

<http://www.pandemicflu.gov/plan/healthcare/medical.html>

U.S. Department of Homeland Security

<http://www.ready.gov/>

World Health Organization

<http://www.who.int/csr/disease/en/>

ensure timely referral of patients to designated alternate care sites and to community points of distribution for medications and vaccines.

Many epidemic patients may be better treated at home. Public health officials may mandate patient isolation, contact quarantine and social distancing. Offices must anticipate the need to track, monitor, treat, visit and potentially refer home-bound patients to higher levels of care. Coordinate with colleagues and public health officials to ensure that special populations, including those who are chronically or critically ill and may not have access to clinics or hospitals during an epidemic, are not forgotten. Work with insurers to relax prior authorization and other requirements as needed to ensure timely delivery of services and medications for patients being treated at home.

Be proactive. Communication at every level will be critical. Be prepared to report suspected epidemic cases to public health authorities and to consult infectious disease experts when necessary. Language appropriate signage, instructions and patient education materials should alert patients to report symptoms, use appropriate cough etiquette and provide basic care for themselves and their families. Encourage insurers or central offices to open patient hotlines and nurse advice lines. Participate in community or regional planning exercises and designate a practice spokesperson to interface with the community and the media if necessary. Plan to provide input to local and regional ethics panels that may need to make difficult resource allocation decisions.

Be ready for "business as usual." Finally, your planning should also focus on office recovery and reconstitution once the epidemic subsides. It may take weeks or months but eventually the practice will return to normal. Bills must be collected and equipment and supplies must be replenished. Patients whose appointments were postponed will need to be rescheduled.

Plan for success

Preparing for an infectious disease epidemic is a seemingly daunting challenge. Family medicine offices that are systematic in their efforts to detect, prevent and manage seasonal influenza, pneumonia and other respiratory pathogens are likely to be better prepared. However, the fundamental tasks required for responding effectively to an epidemic are those that most offices perform each and every day – triage, prioritization, diagnosis, prevention, patient-centered treatment of chronic illness and infectious disease, communication with patients and outside agencies, education and training, staff management, business continuity and psychosocial support. Numerous resources are available to help you prepare. With forethought and diligent planning, you will be ready, particularly if H1N1 influenza returns with a vengeance later this year.

Send comments to fpmedit@aafp.org.

1. Temte JL. Basic rules of influenza: how to combat the H1N1 influenza (swine flu) virus. *Am Fam Phys*. Published ahead of print on May 5, 2009. Available at: <http://www.aafp.org/online/en/home/publications/journals/afp/print/combat-h1n1.html>. Accessed May 5, 2009.
2. Temte JL. Telephone triage of patients with influenza. *Am Fam Phys*. Published ahead of print on May 5, 2009. Available at: <http://www.aafp.org/online/en/home/publications/journals/afp/print/influenza-telephone-triage.html>. Accessed May 5, 2009.
3. Temte JL. Preparing for an influenza pandemic: vaccine prioritization. *Fam Pract Manag*. January 2006:32-34. Available at: <http://www.aafp.org/fpm/20060100/32prep.html>. Accessed May 1, 2009.

KEY POINTS

- Begin planning now.
- Master the detection, prevention and management of seasonal influenza and community acquired pneumonia.
- Practice scrupulous infection control – “wash in and wash out.”
- Communicate at all levels, and coordinate with public health agencies.
- Focus on staff management and business continuity. You can't treat patients if you go out of business.

Watch for publication of the final, updated version of this article, currently scheduled for the July/August 2009 issue of FPM.