

## Risk Management Pitfalls For Managing Influenza in the Emergency Department

- 1. “The fever was low-grade; I thought the baby just had a cold.”**  
The presenting signs and symptoms of influenza infection are nonspecific, and a diagnosis based on clinical presentation alone becomes less accurate in children aged < 3 years. Although many children will experience a mild disease course and can be managed with supportive therapy, patients aged < 2 years are at high risk for a more severe clinical course. Be vigilant and have a high index of suspicion for possible influenza infection in high-risk populations, especially when disease prevalence is high.
- 2. “The patient had an infiltrate on chest x-ray, so bacterial pneumonia appeared to be the clear diagnosis.”**  
Numerous secondary complications can stem from a primary influenza infection. When addressing and treating these complications, do not overlook the possibility of a primary influenza infection and the need for medical management. In certain clinical situations, treatment with antiviral medications as well as antibacterial medications may be indicated.
- 3. “I thought I would just let it run its course.”**  
Many previously healthy people can be treated with supportive therapy alone; however, you must be aware of the numerous risk factors that are likely to result in a more severe disease course. For patients deemed well enough to be safely discharged from the ED, utilize shared decision-making with the patient and ensure a follow-up strategy is in place.
- 4. “It is the summer. Influenza occurs in the fall and winter, so I do not need to be concerned about it at this time of the year.”**  
Although influenza certainly exhibits seasonal fluctuations and regional outbreaks, the disease can occur year-round. Testing and possible empiric treatment of patients with an influenza-like illness are influenced by the regional prevalence of the disease, so monitor medical agencies that track the prevalence of influenza on a regional and national level, such as the CDC.
- 5. “My patient is pregnant and has influenza. The side-effect profile of antiviral medications concerns me, so I feel better treating her with supportive care.”**  
Pregnancy is a risk factor for a more severe disease course during an influenza infection. Initial CDC epidemiologic data from the last 10 influenza seasons indicate that some of the highest rates of morbidity and mortality are among pregnant women, which confirms the necessity of antivirals in this population.
- 6. “Medical knowledge has advanced over the past few decades, and now we have great antiviral medications. I do not need to worry about a devastating influenza infection today.”**  
While it is true that medical science has advanced considerably since the pandemic of 1918, influenza remains a significant threat. The ability of the virus to undergo genetic reassortment allows for the rapid development of new influenza strains to which the population has little or no immunity. Resistance to antiviral medications has been known to develop quickly for certain influenza strains and appears to be a rapidly increasing concern over time.



7. **“Flu is everywhere. I don’t have the time to consult the CDC website. I will just give oseltamivir to my patient and be done with it.”**  
Even in times of epidemic influenza infection, numerous strains can be circulating at a given time within a particular region. In past epidemics, there have been reports of influenza strains resistant to oseltamivir. Thus, without knowing the prevalence of local strains, one might mistakenly choose an antiviral agent that will prove less effective on those strains. Treatment with more than 1 agent may even be indicated in some regions until more formal strain-specific diagnostic testing can be undertaken. Since certain medications are effective against only influenza type A, the local prevalence of any type B influenza should be determined in order to select the appropriate drug therapy.
8. **“I see so many patients in the ED every hour. I can’t possibly wear a mask and wash my hands for every patient. Plus, I must have been exposed to influenza 100 times already.”**  
Maintaining effective infection control is crucial to protecting not only other patients in the ED but also healthcare staff. Patients suspected of having influenza require appropriate isolation, and strict hand-washing as well as personal protective equipment (eg, masks) are necessary to protect healthcare staff who are in direct contact with patients. The Strategic Plan for Management of an Influenza Outbreak, published by the American College of Emergency Physicians, is a good resource to ensure the highest level of preparedness on the part of the ED staff as well as their ability to handle a surge in patient volume that can be expected during a disease pandemic.

9. **“The WHO has declared a pandemic. I feel better giving all my suspected influenza patients antiviral therapy, since I don’t want anyone to have a poor outcome.”**  
Declaration of a pandemic does not necessarily mean that the particular infectious organism is more virulent. It merely recognizes that the disease is spreading worldwide. Pandemics can occur during both mild and more severe disease outbreaks.
10. **“I performed a rapid influenza test and it was negative, so I am safe sending my patient home on supportive therapy alone.”**  
Numerous forms of testing are available to detect influenza infection. Rapid diagnostic tests help guide clinicians in their immediate management decisions, but the quality of the specimen and the skill of the technician performing the assay can influence results. Certain rapid assays are specific for influenza type A, so knowing which strains are circulating locally is important. In times of high disease prevalence, the chance that a given patient with an influenza-like illness actually has the disease is increased, as are the number of false-negative results obtained from rapid diagnostic testing. At such times, empiric therapy based on clinical presentation alone is advised for patients at high risk. In more severely ill patients, viral culture and PCR testing are indicated when the initial rapid test yields a negative result.

**Table 1. Influenza Pandemics Over the Past 100 Years**

Years	Name	Subtype	Estimated Deaths
1918-1919	Spanish flu	H1N1	USA: 675,000 Worldwide: 50 million
1957-1958	Asian flu	H2N2	USA: 70,000 Worldwide: 1 to 2 million
1968-1969	Hong Kong flu	H3N2	USA: 34,000 Worldwide: 700,000
2009-2010	Swine flu	H1N1	USA: 12,469 <sup>24</sup> Worldwide: 284,000 <sup>25</sup>