

# Letter to the Editor

## The avian flu pandemic

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Through the lay press, as well as via websites of the World Health Organization and the United States Centers for Disease Control, the fear that a new flu pandemic may occur has been clearly communicated. Therefore, we were extremely satisfied to read the article written by Ibiapina et al.<sup>(1)</sup>, which provides important information regarding how to identify this feared disease.

Since May of 2005, outbreaks of the disease in birds have also been reported in Russia, Kazakhstan, Turkey and Romania. From August to October of 2004, there were sporadic reports of human cases of infection with the avian influenza A (H5N1) virus in Vietnam and Cambodia. In December of 2004, it was reported that a resurgence of the epidemic had begun. A total of 122 human cases (62 resulting in death) were presented on the World Health Organization website on January 11, 2005. Those cases were reported, in descending order by number of cases, in Vietnam, Thailand, Indonesia and Cambodia.<sup>(2)</sup>

The reason for the high state of alert resides in the fact that H5N1 infection in birds is probably becoming endemic in Asia, increasing the likelihood that humans will continue to be infected through direct contact with such birds. Despite the fact that human-to-human transmission has not been consistently demonstrated, there is the possibility of genetic reassortment between the influenza virus that normally afflicts humans and that occurring in birds, thereby making transmission between humans, and consequently a flu pandemic, possible.<sup>(3)</sup> Natural immunity to the H5N1 subtype among human populations is low, and the viral strains recently isolated in Vietnam and Thailand have presented high resistance to amantadine and rimantadine, two important antiviral medications used

in the treatment of influenza. In view of these facts, an H5N1 pandemic would result in high mortality rates.<sup>(3)</sup> Efforts to produce a vaccine against this subtype are ongoing. However, even after development of such a vaccine, an ample supply would not be available for many more months.<sup>(3-4)</sup> Disease severity and the death toll cannot be estimated prior to the onset of the potential pandemic. In past pandemics, 25 to 35% of the global population was affected. Therefore, we can estimate that from 2 million to 7.4 million people would die. Although the capacity for production of antivirals has recently quadrupled, it would take a decade to produce enough oseltamivir to treat 20% of the global population.<sup>(2)</sup>

We have had the advantages of a two-year early alert and of the knowledge of the probable causative agent of a potential pandemic with serious public health consequences. Nevertheless, we are, as a global community, as yet unprepared to cope with such an event.<sup>(2-3)</sup>

### REFERENCES

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