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Case Study of a Returning Tourist Group with Members  
Collectively Having Fever Upon Arrival at Chiang  
Kai-shek International Airport

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Around eight thirty on the evening of February 6, 2006, staff at a fever-screening station located at Chiang Kai-shek (CKS) International Airport for in-coming travelers detected five members of one tourist group having fever. The group was on its return trip from Bali, Indonesia having boarded China Airline Flight CI688. Their stay in Indonesia from was from February 2 till 6, and the group consisted of 35 members. Since the incident revealed more than one person from the same travel group having fever, it constituted the necessary epidemiological circumstances in terms of people, timing, and location for a possibility of potential cluster infection that calls for immediate investigation.

The purposes of such an investigation include: to find out how many members of the traveling group in total were having similar symptoms, what are the common symptoms other than elevated temperature, what was the probable route of transmission, what was the pathogenic cause of the fever, and, most importantly, whether there was anyone infected with the much feared “human avian influenza.”

After our careful on-site investigation, it turned out that other than the initially detected five individuals, the rest of the group were well, so the invasion rate was 14.3% (5/35). It turned out that the feverish ones were all female, aged from 9 to 41. Their elevated temperatures ran between 38.3°C to 39.6°C and their other major symptoms were coughing, sore throat, and running nose, and the occurrence rates of these three individual symptoms among the feverish patients turned out to be 60.0% (3/5). The onset of the disease symptoms in each patient was said to be somewhere between February 2 and 4, and the time distribution of such onsets appeared as a single peak, which implied the transmission route might well be from a single common source of infection (see Figure 1). According to the sufferers’ voluntary statements, they did not pay a visit to any bird parks nor were they in contact with any wild birds or even live poultry during the trip. However, they did mention that a local tour guide assigned to them in Indonesia was apparently suffering from some kind of respiratory condition, but they had no idea whether the guide had any personal contact with birds before. It was their guess that the guide might have passed on the respiratory symptoms to them as the guide worked very closely to the group all day long throughout their tour activities. In short, it was very likely that the guide was the common source of their illness. The staff at the temperature-screening post immediately gave a mask to each of the five sufferers to wear and a special briefing to them on the

points to be aware of and necessary procedures to follow for travelers returning from regions with human cases of avian flu. In the meantime, a physician from the CKS Airport Clinic was called in to give the patients a preliminary physical checkup and the diagnostic result by the doctor was nothing other than “fever of unknown origin.” Since their symptoms appeared similar and the five patients belonged to the same traveling group and had stayed close together in the past few days, the post staff decided to use two ambulances to send them to the nearby Emergency Room of Li Hsin Hospital for further examination.

Right after their arrival at the emergency room, the ER physician on duty at Li Hsin Hospital carried out relevant medical checkups and did chest X-rays on them before announcing that they were diagnosed with viral infection. The good doctor also took their throat swabs for a quick examination, and the results showed that four out of the five patients were indeed infected with influenza virus type A while the last one appeared to be suffering from influenza either type A or B without the presence of detectable virus. Because the outcomes of serological tests and chest X-ray of all five individual cases failed to show evident inflammatory signs, the attending doctor decided not to prescribe anti-flu virus medication to the patients. Instead, he just ordered the individuals to stay at home for the following ten days under “self-administered health management” in accordance with the regulations. At eight thirty a.m. the next day, February 7, 2006, they had some additional throat swab specimens previously taken from the five patients sent to Kungyang CDC Laboratory. With the help of RT-PCR analysis, the laboratory confirmed that the flu virus involved was AH1 type in all five cases. Besides, it was also confirmed that they were definitely not infected by the dreadful “human bird flu.” Furthermore, there was a case claiming that she suffered sore bones, and she insisted she had been bitten by mosquitoes

during the trip. Since the woman's residence was in the area under the jurisdiction of the First Branch of Taiwan CDC, that branch along with the local health unit took over the case for subsequent tracking efforts including taking the woman's blood sample for laboratory analyses, which did exclude the possibility of being infected by Dengue fever.

In October 2005, the government promulgated a new regulation advising that all travelers from Taiwan returning from regions like Indonesia, Vietnam, Thailand, Cambodia, and Mainland China, where "human bird flu" outbreaks are still occurring, ought to proceed with self-administered health management after their arrival in Taiwan. The health authority also strengthened the function of the existing fever-screening post at CKS Airport by adding immediate specimen sample collecting and epidemiological monitoring for those travelers with elevated body temperature and/or flu symptoms. Before February 11, 2006, there were 119 travelers passing through the air terminal from those specified regions found to be feverish and thus sent to have specimens taken, and 35 of them were diagnosed with flu virus (positive rate 29.4%). This article describes the latest typical cluster case discovered by the strengthened fever-screening system. In short, five female members of a tourist group of 35 were detected immediately when arriving at CKS International Airport. The follow-up investigation and specimen testing confirmed that they were only infected with ordinary flu virus type AH1, instead of the dreaded H5N1 causing "human bird flu. Besides, from the statements they made, their infection seemed to have originated from contact with a local Indonesian tour guide.

**Figure1. Distribution of Onset Dates for those Five Members Having Fever in the Tourist Group While Arriving at CKS International Airport on February 6, 2006.**

