PH 072466:   MAJOR HEALTH SYSTEMS DEVELOPM
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      HUAI YANG: TIME COURSE ANALYSIS OF 25 CASE PATIENTS WITH AVIAN INFLUENZA A (H5N1) VIRUS INFECTION IN CHINA, 2005-2007. THESIS ADVISOR: ROBERT SEDGWICK CHAPMAN, M.D., M.P.H., 72 pp.

Background

Outbreaks of avian influenza A (H5N1) in poultry throughout Asia have had major economic and health repercussions. As of December 31, 2007, 25 confirmed civilian human cases of avian influenza (H5N1) had been reported in China.

Methods

I retrospectively abstracted data collected from field epidemiological investigations and hospital medical records of H5N1 cases from 2005 to 2007 in China, and analyzed the time courses of these cases to estimate incubation period and compare the time courses of medical consultation and case detection of case patients living in urban and rural China.

Results

From 2005 to 2007, 14 (64%) exposed to sick/dead poultry and 8 (36%) case patients in urban area have visited wet poultry market about 8 days before illness onset. The median days from illness onset to the first medical consultation was 1 day (range 0-6). H5N1 cases in rural areas would first consult with health facilities in their village (p=0.018). 34 (62%) specimens were collected from URT and 21 (38%) from the LRT. Specimens collected within 7 days after illness onset presented high proportion be tested as positive by methods of virus RNA detection and virus isolation (P= 0.006 & P=0.010). Sensitivity of reverse transcription-polymerase chain reaction detected H5N1 AIV RNA is 89%.

Conclusions

Exposures to potential sources of avian influenza A (H5N1) more than 7 days before illness onset should then be sought. The possibility of avian influenza A (H5N1) should be considered in all patients with severe acute respiratory illness. Specimens should be collected from different respiratory sites on multiple days.

Field of Study <u>Health Systems Development</u> Student's signature_____

Academic year <u>2007</u>_____ Advisor's signature_____