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Clinical characteristics and treatment effectiveness in possible human cases of influenza A/H5N1

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Introduction
High pandemics influenza A(H5N1) viruses, endemic in avian species in some countries, are zoonotic transmitted especially to humans, and recently sporadically transmitted from humans to humans. This virus is a serious public health threat and poses pandemic potential. Case fatality rates are high (approximately 60%), and the potential for serious outcomes for humans is high. As of 9 August 2005, 564 cases have been recorded by the World Health Organisation (WHO), of which 86 were fatal.1 Of current concern are the large number of cases reported in Thailand (208 since 2004) and Egypt (151 since 2004), and in particular the exceptionally high case fatality rate in Indonesia, where 34/378 (9%) cases (82%) were fatal.1

To address ongoing concerns relating to the spread of influenza A/H5N1 together with the high virulence indicative of a human influenza A/H5N1, an early alert was made by the WHO in May 2003, and several meetings of the expert consultation groups were subsequently held. The pandemic alert system (PAS) was established. The PAS is intended to alert governments, public health authorities, and international organizations to emerging health threats and to facilitate communication of data and improvements in the containment of influenza A/H5N1.

The analysis of recent data from the WHO was carried out to describe suspected human cases of influenza A(H5N1), and to compare them with laboratory-confirmed cases.

Methods
The PAS, which was launched in May 2003, is a global observational database of patients with suspected or confirmed influenza A(H5N1), data sources for the PAS are primarily clinical records, published case series and government reports.

Epidemiological, clinical and treatment information on laboratory-confirmed and suspected avian influenza cases of A(H5N1) are collected by the Member States. The surveillance of laboratory-confirmed cases is based on the level of available data; supporting the diagnosis, e.g., symptoms and epidemiological links. For time, place and incriminating links it is likely or confirmed case of disease.

Cases are classified as: (Table 1):
- Likely confirmed by WHO (likely suspected category).
- Likely confirmed by WHO (probable study category).
- Laboratory confirmed (additional to local laboratories).
- Laboratory confirmed (facilities other than WHO).

We sought to define cases of interest, to compare these with the clinical characteristics of laboratory-confirmed cases. The analysis was based on information from countries that reported both confirmed and unconfirmed cases, and continued patients categorised as "likely" or "likely" or "confirmed" in the agreement.

Results
Data were available for 250 confirmed and 215 unconfirmed cases from eight countries (Table 2). The country with the largest number of unconfirmed cases was Indonesia.

Table 3: Timing of onset according to confirmed status.

Table 4: Survival of treated and untreated patients according to time-free symptoms onset to treatment.

Table 5: Case fatality rates according to symptoms or presentation.

Table 6: Summary of treatment and adverse events according to time-free symptoms onset to treatment.

Conclusions
- The results from the report suggest that unconfirmed cases of influenza A(H5N1) are likely to represent a proportion of true avian influenza cases and other aetologies.
- Case fatality rates were higher in confirmed cases, possibly reflecting the proportion of patients presenting with a wide range of symptoms, compared with confirmed cases.
- Importantly, patients' initial presentation to hospital is crucial to reduce mortality from avian influenza. It is recommended that presentation be made as soon as possible to delay the need for intensive care treatment, with some benefit still evident in unconfirmed cases.

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References