ACM/634

DISCUSSION PAPER

ADVISORY COMMITTEE ON THE MICROBIOLOGICAL SAFETY OF FOOD (ACMSF)

AVIAN INFLUENZA : UPDATE

Introduction

1. A paper was presented at the last meeting of ACMSF outlining proposals for a survey of H5 and H7 strains of avian influenza (AI) virus in asymptomatic flocks and providing information on outbreaks of a highly pathogenic strain of H7N7 AI in the Netherlands. The paper presented information on possible risks of zoonotic transmission and concluded with a consideration of the potential risk to human health through food chain exposure, based on informal discussion with Dr Brown.

2. The Committee's preliminary conclusion was that the risk to human health from exposure to AI through food chain pathways was probably very low. The Committee nevertheless supported the suggestion that Dr Brown should be asked to carry out a more formal risk assessment, which members could then consider before giving the FSA formal advice on the matter.

Progress

3. Throughout March and April, the disease continued to spread rapidly in the Netherlands, with a total of between 236 and 255 farms being involved. 26 million chickens were slaughtered. The disease also spread to Belgium, where 8 farms were affected and around 3 million chickens slaughtered, and to Germany, although only one farm was affected in that country.

4. There have been no new cases in commercial poultry farms since the end of April and trade restrictions are gradually being lifted.

5. Prior to this outbreak, H7 strains were known to cause conjunctivitis in humans, although they had not been associated with systemic illness. The total number of cases of conjunctivitis in this epidemic is unclear. An

early report stated that, of 194 persons exposed to infected poultry who reported conjunctivitis, 61/169 had conjunctival swabs positive for H7N7. A further 53 had influenza like illness or other symptoms and 4 of these (all with unknown or "other" symptoms) tested positive for H7N7. A later report stated that there were 82 cases of conjunctivitis in the Netherlands and 1 in Belgium. However, on 6 May, the Netherlands reported that there had been 23 cases of H7N7 conjunctivitis with no further cases since 19 April.

6. Partial sequencing of the 6 internal genes of the virus circulating in the Netherlands suggested that the virus had not acquired genes that would enable it to cause significant disease in humans or allow it to spread from person to person. However, a 57-year old veterinary surgeon, who had visited a farm affected by the virus, died of acute respiratory distress syndrome on 17 April 2003. His throat and eye swabs after visiting the farm had been negative and he took no anti-viral medication. However, after he became ill, bronchoalveolar lavage was positive by PCR for AI H7N7, as were the lungs on post mortem examination. Hence, the virus was almost certainly responsible for his death. Three contacts of cases also developed conjunctivitis.

7. Unfortunately, the SARS epidemic has dominated the lives of respiratory virologists for the last three months and it has not been possible to complete the risk assessment work. However, Dr Brown has spoken to relevant experts in the human and veterinary fields and will provide a progress report at the meeting.

8. Whilst a formal risk assessment is still required, the end of the epidemic in the Netherlands means that the need is not so pressing as it was and that it would be possible for the Committee to revisit the issue at the September meeting, when Dr Brown has completed his work, rather than dealing with the matter by correspondence. Current understanding is that mutation of low pathogenicity AI to high pathogenicity AI (HPAI) is a rare event, with only 20 outbreaks of HPAI globally since 1959. However, it is of concern that a significant number of these outbreaks have happened in recent years (11 since 1991 and 6 since 1997). We understand that the results of the point prevalence surveys of apathogenic strains of H5 and H7 across the EU should be available in October.

Secretariat

25 June 2003