From: Sheila Bird
Sent: 06 March 2006 17:07
To: Edwards, Simon
Subject: Avian flu overture

I append a copy of the email that I sent to Professor Blakemore on 5 January 2006. I am pleased that RS/AcadMedSci study group appears to be taking up some of the issues mentioned in my note to Professor Blakemore, who was very attracted by some of thie ideas mooted. It remains the case that UK's surveillance protocol for avian flu is not readily accessible by public health scientists. We know from BSE how important good scientific communication is at the early stages of an epidemic, and thow short-sighted it is for there to be a deficiency of peer-review.

I should be most willing to assist the study group if I am able to do so.

Sent: 05 January 2006 12:22 To: Blakemore Colin; Sheila Bird Subject: Avian flu: EU and UK veterinary & public health surveillance in birds and man

Dear Professor Blakemore
Congratulations on your excellent interview on radio 4's Today programme, which was memorable for a number of reasons. Firstly, you commented that ducks are the 'Trojan horse' of avian flu: subclinical carriers & transmitters of infection. I had not known this - but was anyway worried that the level of UK's veterinary surveillance for avian flu was insufficient because reliant primarily on found-dead birds rather than being proactive which may necessitate the shooting or stunning of live wild birds, ducks included.

At European Food Standards Agency meeting in early December in Parma on, inter alia, imported epidemics, I discussed with UK veterinary laboratory and DEFRA colleagues UK's surveillance for avian flu. And asked questions such as: a) how many dead/live wild birds have been surveilled in 2005? {1000 to low thousand(s) ??} b) what prevalence of avian flu in wild birds is the (above) surveillance designed to detect?
c) what prevalence of avian flu in wild birds is/was detected by similar methods in key countries in Asia in 2005 and past years? d) would it be more cost-effective for UK to invest in adequate surveillance of wild birds in intermediate countries (Russia, Turkey etc, or further east)?
e) UK has no designated high risk areas for avian flu because, apparently, the EU definition of high risk requires BOTH on migratory path for wild birds ANDthat avian flu has been detected. Clearly, low-level surveillance is the best assurance against non-detection . . .
and hence the absence of high risk areas. f) Country sportsmen who expertly shoot pheasant, woodcock etc do not seem to have been engaged, or be aware of how they could contribute to proactive survellance - a new challenge to their marksmanship that they might welcome!

Clear answers were not immediately available but Marion Wooldridge undertook to obtain for me a copy of the protocol for UK's 'intelligent surveillance' programme re avian flu as that protocol should provide relevant answers.[6/03/06: It does not, because not specific for avian flu]! It should reach me in early January, please see separately forwarded email.

The second aspect that struck me forcefully from your interview was that avian flu had emerged in 1997 (eight years ago), there have been uncounted (an omission?) or uncountable (the reality?) outbreaks in different countries in Asia in the intervening 8 years but for no country does it appear that there has been a competent mapping exercise of avian flu outbreaks in domestic flocks by time and place PLUS a corresponding mapping of DIAGNOSED human cases by time and place. These are key epidemiological building blocks.

It seems probable that Turkey has had relatively few outbreaks of avian flu in chickens (compared with even the better-surveillance-capability Asian countries, such as Vietnam, perhaps) to have had so early manifestation in man (if confirmed). This could be due simply to differential human surveillance/diagnosis capacities, or more intriguingly to different genetic or immunological susceptibility internationally, or both. *Turkey's "early recognition", if that is what transpires, marks an opportunity for EU to try to do well the sort of mapping exercises that have inevitably been difficult for resource-poor nations {please see below **} to manage - even with WHO and other (including MRC's recent) help.

* /A third aspect, which arises from the second, is that consideration should be given to case control studies - why did avian flu outbreak A in Turkey in quarter 4 of 2005 generate human cases but outbreaks B, C, D and E did not? And, why - genetically, virologically, occupationally, immunologically, demographically - did humans a, b, c and d within avian outbreak A succumb to avian flu whereas household and other contacts/controls i, j, k, l, m, n, etc within avian outbreak A did not do so?

/ *A shared case-controls protocol for use across member states in EU which would facilitate properly-sampled controls + well-collected samples + common database on exposure risks is best designed & implemented from the first cases.* Only last month, the Veterinary Record published a research letter about how UK BARBs (BSE-born After the Re-inforced feed Ban in August 1996) came to be BSE-infected (there were multiples on same farm): inadequate cleaning of feed bins in 1996!
However, it was years after the EU Opinion (for which I was rapporteur) that there should be a BARB-controls study whose prootcol was common across member states that UK actually got this going (in the past 2
years) . . .

/Thus, there could be value for UK/EU in early review/enhancement of both veterinary and human surveillance of avian flu to ensure that best epidemiological practice is fielded early: the BSE saga reminds us of the necessity for this./ Alternatively, a position paper in Lancet could set out what is being done, and summarise the key data to date, or the impediments ot acquiring them. I do not find this information readily via WHO, say.

I apologise for writing at length. However, work on BSE/vCJD continues to reinforce - for hosts and man - the criticality for grounded infectious disease modelling/control of key data acquisition, and is common ground for statisticians in BSU. Happy New Year. Yours sincerely, Sheila Bird **

Postscript: Resource-poor countries are more likely to make confirmatory diagnoses when there is a fatality: they may be unable to afford the necessary virology on all, or even a ? 5% or 1% RANDOM SAMPLE, of ALL cases with flu-like symptoms (or EVEN of those cases ONLY who keep chickens . . .). Fatality rate from avian flu in man would tend to be over-estimated if the trigger for virolgical studies is that a fatality has occurred.
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