Reviewer's report

Title: Minimizing the threat of pandemic emergence from avian influenza in poultry systems

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Reviewer: Young Ki Choi

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Title: 'Minimizing the threat of pandemic emergence from avian influenza in poultry systems'

The paper of Pepin et al remarkably tackled factors that additionally contribute to the epidemiology, reassortment, persistence, and zoonotic risks of emergent viruses in live-bird market (retail and wholesale) settings which appear to provide suitable grounds/environment for the genesis of new avian flu strains. Apart from retail LBMs, they proposed further that wholesale LBMs, which are the source of poultry products for rLBMs, should also be considered and included when implementing control measures during outbreaks and that length of time birds stay in both rLBM and wLBM is also critical. The authors also went on to propose changes which warrant consideration to help prevent future outbreaks. Overall, hypothesis and conclusions were well supported by their mathematical models and publication of this manuscript would be worth considering by policy-making bodies during outbreak settings. Some few minor changes that require modification:

Minor Essential Revisions

Page 5, lines 70-71. “... When the incubation period of an emergent virus in a susceptible host is 1 day, mean daily prevalence increases by 250% when stay-time is increased from 1-2 days...”

P6, l109. “… remain longer in wLBM than rLBM…”

P9,l159. “… surveillance of influenza A viruses in key livestock…”

In general, the reference formats should be checked to the journal.

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: Yes, and I have assessed the statistics in my report.

Declaration of competing interests:
'I declare that I have no competing interests'