Faktor Risiko Kontaminasi *Avian Influenza* Subtipe H9 pada Pasar Unggas Hidup di Jakarta, Tangerang, dan Bekasi

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INTISARI

Virus *Avian Influenza* subtipe H9 dapat mengalami *reassortment* dengan subtipe lain sehingga menghasilkan subtipe baru yang zoonosis dan berakibat fatal seperti virus H7N9. Pasar unggas hidup adalah sumber utama transmisi dan *reassortment* virus AI. Penelitian ini bertujuan untuk mengetahui tingkat kontaminasi dan faktor risiko terjadinya kontaminasi virus H9 di pasar unggas hidup di Jakarta, Tangerang, dan Bekasi.

Kajian lintas seksional dilakukan pada 87 kios pedagang dan 124 ayam broiler dari 44 pasar unggas hidup yang dipilih secara random sederhana di Kota Bekasi, Jakarta Utara, dan Kota Tangerang. Ketiga kota tersebut memiliki proporsi kasus H9 positif sebesar 66,7-100% pada tahun 2021. Sampel yang diambil berupa swab peralatan, swab trakea, dan swab kloaka. Pengujian yang dilakukan yaitu *Real-Time Reverse Transcription Polymerase Chain Reaction*. Analisis data dilakukan menggunakan *summary statistics*; bivariat dengan *Chi-square*, *Odds Ratio,* dan *Relative Risk*; serta analisis multivariat dengan regresi logistik.

Hasil penelitian diperoleh tingkat kontaminasi virus H9 pada pasar sebesar 77,27% (93% CI, α 7%), sedangkan tingkat kontaminasi pada kios pedagang sebesar 51,72% (95% CI, α 5%). Faktor risiko yang berpengaruh secara signifikan yaitu adanya bak cuci karkas. Model regresi logistik menunjukkan alat pelindung diri berupa apron dan *boot* (β-1,42176; OR 0,24) menurunkan kontaminasi virus H9, sedangkan adanya bak cuci karkas (β+1,58691; OR 4,89) meningkatkan kontaminasi virus. Faktor pada ayam broiler yang meningkatkan kontaminasi virus H9 yaitu ayam asal Jawa Tengah (β+2,29886; OR 9,96) dan penukaran unggas sakit (β+1,56394; OR 4,78), sedangkan yang menurunkan kontaminasi virus yaitu kandang penampungan tipe keranjang (β-1,06915; OR 0,34). Penelitian ini menunjukkan tingkat kontaminasi virus AI subtipe H9 di pasar unggas hidup sebesar 77,27% yang berkaitan dengan lingkungan kandang penampungan, peralatan pedagang, dan higiene personal.

Kata kunci: H9, pasar unggas hidup, tingkat kontaminasi, faktor risiko

Risk Factor for Avian Influenza Virus Subtype H9 Contamination in Live Bird Markets in Jakarta, Tangerang, and Bekasi

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ABSTRACT

Avian Influenza virus subtype H9 can undergo reassortment with other subtypes resulting in a new subtype which is zoonotic and has fatal consequences like the H7N9 virus. The live bird market is a major source of transmission and reassortment of AI viruses. This study aims to determine the contamination rate and risk factors for H9 virus contamination at the live bird markets in Jakarta, Tangerang, and Bekasi.

A cross-sectional study was conducted on 87 vendors stalls and 124 broilers from 44 live bird markets selected simply randomly in Bekasi City, North Jakarta, and Tangerang City. The three cities had proportion of positive H9 cases of 66.7-100% in 2021. The samples taken were equipment swabs, tracheal swabs, and cloacal swabs. Virus detection was carried out using Real-Time Reverse Transcription Polymerase Chain Reaction. Data analysis was performed using summary statistics; bivariate with Chi-square, Odds Ratio, and Relative Risk; and multivariate analysis with logistic regression.

The results showed that the contamination rate of the H9 virus in the market was 77.27% (93% CI, α 7%), while in vendors stalls was 51.72% (95% CI, α 5%). The risk factors that have a significant effect was carcass sinks. The logistic regression model showed that personal protective equipment such as aprons and boots (β-1.42176; OR 0.24) reduced H9 virus contamination, while carcass sinks (β+1.58691; OR 4.89) increased it. Factors in broiler that increased H9 virus contamination were chickens from Central Java (β+2.29886; OR 9.96) and exchange of sick birds (β+1.56394; OR 4.78), while those that reduced virus contamination were holding cages made from plastic/bamboo (β-1.06915; OR 0.34). This study showed that the level of AI virus subtype H9 contamination in the live bird market was 77.27%, which was related to the environment of the holding cages, vendors' equipment, and personal hygiene.

Keywords: H9, live bird market, contamination rate, risk factor