

RISK ASSESSMENT FOR RABIES VIRUS INTRODUCTION TO WEST TIMOR

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ABSTRACT

Rabies is caused by the rabies virus, a neurotropic virus in the genus *Lyssavirus*, family *Rhabdoviridae*, which infectious to all mammals. The first rabies case in East Nusa Tenggara province was happened in East Flores at 1997. East Timor is one of three major islands in East Nusa Tenggara which is adjacent to the Flores island and the Kisar island (Southwest Maluku district), which has the status of rabies-infected region. There are no reported cases of rabies in Timor island until today, so it is necessary to anticipate the risk of contracting rabies. This research was conducted to identify and calculate the probability pathways for rabies entry to Timor island by dog movement. The study used risk assessment approach. Data in this research was obtained from documents, reports, interviews, questionnaires and direct observations on the Timor island. Assessment was done by using six categories of likelihood that refers to the Biosecurity Australia and mapping the location of the rabies risk pathway using ArcGIS® Version 10.3. This research found, 107 ships from rabies endemic area arrived at Timor island in a week. Three of them (8,3%) kept some dogs on the board. Seven from 86 respondents (8,1%) had seen a ship from rabies-free areas, and four from 86 respondents (4.7%) of a rabies endemic areas who bring dogs during sailing at the Timor island. Base on Risk Assessment analysis, Timor island has a high risk possibility to infected rabies through the ships come from rabies endemic area.

Keywords: Dog, Risk Assessment, Rabies, Timor Island

PENILAIAN RISIKO MASUKNYA VIRUS RABIES KE TIMOR BARAT

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INTISARI

Rabies adalah penyakit yang disebabkan oleh virus neurotropik dari genus *Lyssavirus*, famili Rhabdoviridae yang menular ke semua mamalia. Rabies di NTT pertama kali dilaporkan pada tahun 1997 di Kabupaten Flores Timur. Pulau Timor merupakan satu dari tiga pulau besar di Provinsi NTT dan berbatasan dengan pulau Flores serta pulau Kisar (Kabupaten Maluku Barat Daya) yang memiliki status daerah terinfeksi rabies. Belum ada laporan kasus rabies di pulau Timor hingga saat ini sehingga perluantisipasi terhadap risiko tertular rabies. Penelitian ini dilakukan untuk mengidentifikasi dan menghitung peluang jalur masuk rabies ke pulau Timor melalui lalu lintas anjing. Penelitian dilakukan dengan melakukan penilaian risiko. Data berasal dari dokumen, laporan, wawancara, kuesioner dan pengamatan langsung di pulau Timor. Penilaian dilakukan dengan menggunakan enam kategori kemungkinan (*likelihood*) yang mengacu pada *Biosecurity* Australia serta dilakukan pemetaan lokasi risiko jalur masuk rabies menggunakan ArcGIS® Version 10.3. Hasil penelusuran di lapangan, ditemukan 2 kapal (8,3%) yang memelihara anjing di kapal. Sebanyak 8,1% (7/86) responden pernah melihat kapal dari daerah bebas rabies, dan 4,7% (4/86) dari daerah endemis rabies yang membawa anjing selama berlayar berlabuh di pulau Timor. Perhitungan akhir penilaian risiko menunjukkan kemungkinan risiko tinggi masuknya rabies melalui kapal-kapal yang berasal dari luar pulau Timor.

Kata kunci : Anjing, Penilaian Risiko, Rabies, Pulau Timor