Model prediksi infeksi rotavirus pada anak balita dengan diare akut berdasarkan gejala klinis dan karakteristik lainnya di Rumah Sakit Umum Serang tahun 2012 = Prediction model of rotavirus infection among children under five with acute diarrhea based on clinical symptoms and other characteristic in Serang Hospital 2012

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Abstrak

[ABSTRAK

Latar Belakang. Rotavirus merupakan penyebab terbesar dari penyakit diare akut pada anak balita. Gejala klinis yang ditimbulkan yaitu diare, demam, muntah, nyeri perut, dan dehidrasi. Berdasarkan hasil penelitian di dua kota tahun 2007, ditemukan 47% Rotavirus sebagai penyebab diare akut di RS Hasan Sadikin, Bandung, sedangkan di RS Dr Sardjito, Yogyakarta ditemukan 32%. Biaya pemeriksaan laboratorium untuk mendeteksi adanya Rotavirus sangat mahal pada laboratorium tertentu saja. Belum diketahui kemampuan mendeteksi diare yang disebabkan Rotavirus berdasarkan beberapa gejala klinis dan karakteristik anak balita dengan diare akut.

Objektif. Mengeksplorasi model prediksi untuk diagnosis diare yang disebabkan infeksi Rotavirus pada anak balita dengan diare akut dengan berdasarkan informasi gejala klinis dan karakteristik anak.

Metode. Analisis dilakukan dengan menggunakan subsampel data penelitian utama Badan Penelitian dan Pengembangan Kesehatan Kementrian Kesehatan RI yang berjudul ?Identifikasi dan Uji Resistensi Mikroorganisme Penyebab Diare Pada Anak Balita di Indonesia tahun 2011?. Data anak balita dengan diare yang dirawat di Rumah Sakit Umum Serang selama tahun 2012 dikumpulkan melalui kuesioner. Selain gejala klinis dan karakteristik anak, dikumpulkan juga sampel tinja untuk dilakukan pemeriksaan adanya Rotavirus dengan metode Real-Time PCR..

Hasil. Hasil penelitian menunjukkan bahwa gejala demam, kondisi tinja cair dan karakteristik anak (meliputi umur balita dan tidak diberi ASI) dapat digunakan untuk memprediksi adanya infeksi Rotavirus pada anak balita dengan diare akut. Model prediksi untuk nilai duga positif terjadinya infeksi Rotavirus pada anak diare akut sebesar 71,43%, berdasarkan gejala klinis (meliputi demam dan kondisi tinja cair) dan karakteristik anak (umur balita dan tidak diberi ASI). Pada anak diare akut yang mengalami gejala demam, kondisi tinja cair, umur 1-12 bulan, dan tidak diberi ASI, dugaan penyebab diare akut adalah rotavirus dengan peluang sebesar 82,1%.

Simpulan dan Saran. Karakteristik anak dan beberapa gejala klinis dapat digunakan untuk menduga penyebab diare akut yang disebabkan Rotavirus.

Mendasari hasil penelitian disarankan agar anak diare yang diikuti dengan demam dan kondisi tinja cair, perlu mendapat penanganan segera dengan diawali rehidrasi dan dapat dijadikan masukan bagi kebijakan dalam tatalaksana diare akut yang disebabkan Rotavirus.

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ABSTRACT

Background. Rotavirus is the common cause of acute diarrheal disease in children under five years old with the several clinical symptoms such as watery stool, fever, vomiting, abdominal pain and dehydration. Based on the previous studies, the prevalence rotavirus among underfive children between 32% and 47% at two hospital in the two cities in the year 2007. Laboratory cost for examining Rotavirus is very expensive. Until now, we don?t know how accurate to predict Rotavirus as a cause of acute diarrhea among underfive children based on the information of clinical symptoms and children?s characteristics.

Objectives. The aim of this study is to explore the prediction model for diagnosing Rotavirus diarrhea among underfive children by clinical symptoms and other characteristics.

Methods. Using data from the main study of ?Identification and resistance analysis of microorganism causing diarrhea among children under five years old in Indonesia? was analyzed?. The study collected data from the questionnaire and also specimens in Serang Hospital in 2012. The analyses were completed by laboratory data from the specimens by Real-Time PCR.

Results: The results of the study found that fever, watery stools and age under 12 months without having breastfeeding can be used as prediction model of Rotavirus infections among children with acute diarrhea. The prediction model of positive predictive value of Rotavirus infection of acute diarrhea is 71,43%. The positive predictive value is fulfilled from clinical symptoms including fever and watery stools and toddlers without having breastfeeding. Children presenting acute diarrhea with fever, watery stools, age under 12 months and no breast feeding had the prediction value 82,1%.

Conclusion and recommendation. Characteristics and clinical symptoms of children underfive might be used to predict diarrhea caused by Rotavirus. Rehydration of acute diarrhea of Rotavirus infection is important step in management of acute diarrhea among underfive children.;Background. Rotavirus is the common cause of acute diarrheal disease in children under five years old with the several clinical symptoms such as watery stool, fever, vomiting, abdominal pain and dehydration. Based on the previous studies, the prevalence rotavirus among underfive children between 32% and 47% at two hospital in the two cities in the year 2007. Laboratory cost for examining Rotavirus is very expensive. Until now, we don't know how accurate to predict Rotavirus as a cause of acute diarrhea among underfive children based on the information of clinical symptoms and children's characteristics.

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