

**MODELING THE LENGTH OF HOSPITAL STAY FOR COPD AND
PNEUMONIA PATIENTS IN MALAYSIA FOR 2019**
(Pemodelan Tempoh Penghospitalan bagi Pesakit Copd dan Pneumonia di Malaysia untuk Tahun 2019)

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ABSTRACT

Respiratory diseases are among the leading causes of hospitalizations and deaths in Malaysia. Chronic respiratory illness will have an impact on every aspect of a patient's life, including physical and mental health, social life, finances, and employment. When a patient requires ongoing medical treatment, especially if it is for an extended period of time, the patient's economic burden increases. As a result, understanding the factors that influence the cost of respiratory disease treatment is critical, particularly in terms of financial implications. One of the factors influencing the cost of respiratory disease treatment is the length of hospitalization. As a result, the estimated duration of hospitalization is based on the duration of treatment of inpatients with pneumonia and chronic obstructive pulmonary disease (COPD) in all Malaysian Ministry of Health Malaysia hospitals in the five states with the highest number of hospital admissions, namely Selangor, Sabah, Sarawak, Johor, and Perak. From 1 January 2019 to 31 December 2019, 135 147 patients with COPD and pneumonia were included in the study. The negative binomial regression analysis indicated that age, gender, race, hospital discharge status, and state all had a significant effect on the length of hospitalization.

Keywords: length of stay; COPD; pneumonia; negative binomial regression

ABSTRAK

Gangguan respiratori adalah antara penyakit yang mencatatkan kemasukan ke hospital dan kematian tinggi di Malaysia. Penyakit respiratori yang kronik akan mempengaruhi setiap aspek kehidupan bagi seseorang pesakit tidak kira dari segi kesihatan fizikal atau mental, kehidupan sosial, kewangan mahupun pekerjaan. Beban ekonomi pesakit semakin meningkat apabila pesakit memerlukan rawatan perubatan yang berterusan terutamanya jika ia melibatkan jangka masa yang panjang. Sehubungan dengan itu, memahami faktor yang mempengaruhi kos rawatan penyakit respiratori adalah penting untuk mengatasi implikasi penyakit tersebut khususnya implikasi kewangan. Tempoh penghospitalan merupakan satu daripada faktor yang mempengaruhi kos rawatan bagi penyakit respiratori. Justeru itu, anggaran tempoh penghospitalan dibuat berdasarkan tempoh rawatan pesakit dalaman yang mengidap pneumonia dan penyakit pulmonari obstruktif kronik (COPD) di semua hospital Kementerian Kesihatan Malaysia di lima buah negeri yang mencatatkan bilangan kemasukan ke hospital yang tertinggi iaitu Selangor, Sabah, Sarawak, Johor, dan Perak. Sampel kajian melibatkan 135 147 pesakit yang didiagnosis mengidap COPD dan pneumonia dari 1 Januari 2019 sehingga 31 Disember 2019. Hasil daripada analisis regresi binomial negatif yang dilakukan, didapati bahawa umur, jantina, bangsa, status discaj dari hospital dan negeri mempunyai kesan yang signifikan ke atas tempoh penghospitalan.

Kata kunci: tempoh penghospitalan; COPD; pneumonia; regresi binomial negatif

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