

## FACTORS AFFECTING HOSPITALISATION COSTS PER ADMISSION FOR CERVICAL CANCER PATIENTS

(Faktor yang Mempengaruhi Kos Penghospitalkan Setiap Kemasukan Pesakit Kanser Serviks)

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### ABSTRACT

Cervical cancer ranks among the top ten most prevalent cancers in Malaysia, and it is the second most common cancer in women. A lot of money has been said to be spent on treating cervical cancer. That's why the community and health care professionals need to know how much it will cost to treat this cancer. The purpose of this study is to estimate the average cost of cervical cancer treatment and to determine the factors that influence this cost. From 2013 to 2022, 829 cervical cancer patient samples were collected by the International Casemix and Clinical Coding Centre (ITCC), Hospital Canselor Tuanku Muhriz (HCTM). Among the information gathered includes the treatment cost for one episode of care, the patient's age, clinical factors such as the length of their hospital stay, presence of additional medical issues, cancer severity level, kind of metastasis, type of treatment, and the patient's discharge status. Regression analysis was employed in this investigation. The skewed structure of the treatment cost data is taken into account by including a logarithmic adjustment, which transforms the model for treatment cost estimation. The results demonstrate that the cost of treatments is affected by a number of factors. These factors include the severity of the cancer, the length of hospital stay, the presence of kidney failure or brain metastases, and the type of treatment (surgery, etc.). Decreases in treatment expenses are observed in patients who are older, who have heart disease or bone metastases, who have undergone radiation treatment, and who are homebound upon discharge.

*Keywords:* cervical cancer; treatment costs; multiple linear regression

### ABSTRAK

Kanser serviks berada dalam kedudukan kesepuluh kanser yang paling biasa di Malaysia, dan ia adalah kanser kedua dalam kalangan wanita. Kanser serviks masih merupakan satu daripada sepuluh jenis kanser yang paling biasa di Malaysia. Banyak wang telah dikatakan dibelanjakan untuk merawat kanser serviks. Oleh itu, masyarakat dan penjaga kesihatan profesional perlu tahu kos yang diperlukan untuk merawat kanser ini. Tujuan kajian ini adalah untuk menganggarkan purata kos rawatan kanser serviks dan menentukan faktor yang mempengaruhi kos ini. Dari tahun 2013 hingga 2022, sebanyak 829 sampel pesakit kanser serviks telah dikumpul oleh International Casemix and Clinical Coding Centre (ITCC), Hospital Canselor Tuanku Muhriz (HCTM). Antara maklumat yang dikumpul termasuk kos rawatan untuk satu episod penjagaan, umur pesakit, faktor klinikal seperti tempoh penginapan mereka di hospital, kehadiran masalah kesihatan lain, tahap keterukan kanser, jenis metastasis, jenis rawatan, dan status discaj pesakit. Analisis regresi digunakan dalam kajian ini. Mengambil kira sifat pencongan data kos rawatan, transformasi logaritma dilakukan ke atas model anggaran kos rawatan. Keputusan menunjukkan bahawa kos rawatan dipengaruhi oleh beberapa faktor. Faktor-faktor ini termasuk keterukan kanser, tempoh tinggal di hospital, kehadiran kegagalan buah pinggang atau metastasis otak, dan jenis rawatan (pembedahan, dll.). Pengurangan dalam perbelanjaan rawatan diperhatikan pada pesakit yang lebih tua, yang mempunyai penyakit jantung atau metastasis tulang, yang telah menjalani rawatan radiasi, dan yang pulang ke rumah.

*Kata kunci:* kanser serviks; kos rawatan; regresi linear berganda

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