ESTIMATE INPATIENT'S COST OF BREAST CANCER TREATMENT FOR A SINGLE EPISODE OF CARE
(Anggaran Kos Rawatan Kanser Payudara Pesakit Dalam untuk Satu Episod Perawatan)

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ABSTRACT

In Malaysia, breast cancer remains the leading cause of cancer-related mortality. The cost of breast cancer treatment has been noted as a major barrier to care. The community and the healthcare system as a whole would benefit from knowing the cost of treating this illness. The goal of this study is to identify the factors that contribute to the high cost of breast cancer treatment and provide an estimate of those costs. As a result, between 2017 and 2021, a total of 1027 samples were collected from breast cancer patients at Hospital Canselor Tuanku Muhriz's (HCTM) Breast & Endocrine Unit (ENB) and International Casemix and Clinical Coding Centre (ITCC). Information gathered consists of total healthcare expenditures for a single episode of care, patient demographics like age and gender, and clinical details like disease severity, hospitalisation duration, comorbidities, metastatic status, treatments administered, and discharge status. Regression analysis was used in this research. Because treatment costs tend to be skewed, a logarithmic transformation is used to produce a more precise model for estimating those costs. The results show that age, severity, treatment, length of hospitalisation, hypertension, lung, lymph, and brain metastases, and hospital discharge status all have an impact in the total cost of treating breast cancer patients. Treatment costs are not significantly affected by the presence of liver and bone metastases or comorbidities such as cardiovascular disease, high cholesterol, or diabetes.

Keywords: breast cancer; regression analysis; treatment costs

ABSTRAK

Di Malaysia, kanser payudara kekal sebagai punca utama kematian berkaitan kanser. Kos rawatan kanser payudara dikatakan sebagai penghalang utama untuk perawatan kesihatan. Masyarakat dan sistem penjagaan kesihatan secara keseluruhan akan mendapat manfaat dengan mengetahui kos rawatan penyakit ini. Tujuan kajian ini adalah untuk mengenal pasti faktor-faktor yang menyumbang kepada kos rawatan kanser payudara dan menganggarkan kos tersebut. Justeru itu, sebanyak 1027 sampel telah dikumpul untuk tempoh daripada tahun 2017 sehingga tahun 2021 daripada pesakit kanser payudara di Hospital Canselor Tuanku Muhriz (HCTM) Unit Payudara & Endokrin (ENB) dan International Casemix and Clinical Coding Centre (ITCC). Maklumat yang dikumpul terdiri daripada jumlah perbelanjaan penjagaan kesihatan untuk satu episod perawatan, demografi pesakit seperti umur dan jantina, dan butiran klinikal seperti keterukan penyakit, tempoh kemasukan ke hospital, komorbiditi, status metastatik, rawatan yang diberikan dan status discaj. Analisis regresi digunakan dalam penyelidikan ini. Oleh kerana kos rawatan adalah bersifat terpencong maka transformasi logaritma digunakan untuk menghasilkan model yang lebih tepat untuk menganggar kos tersebut. Hasil kajian menunjukkan bahawa umur, tahap keterukan, jenis rawatan, tempoh penghospitalan, hipertensi, paru-paru, limfa dan metastasis otak, dan status discaj hospital semuanya mempengaruhi jumlah kos rawatan pesakit kanser payudara. Kos rawatan tidak dipengaruhi secara signifikan oleh kehadiran metastasis hati dan tulang atau komorbiditi seperti penyakit kardiovaskular, kolesterol tinggi atau diabetes.

Kata kunci: kanser payudara; analisis regresi; kos rawatan

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