INTISARI

Latar belakang: Meskipun merupakan landasan perawatan pasien di ICU, penggunaan ventilator mekanik jangka panjang akan menambah beban biaya dan meningkatkan morbiditas dan mortalitas pada pasien. Batasan terminologi *Long Term Mechanical ventilation* (LTMV) di ICU masih belum disepakati, namun beberapa referensi menggunakan batasan penggunaan ventilasi mekanik ≥ 96 jam. Memprediksi kejadian LTMV di ICU memberi manfaat dalam hal efisiensi biaya dan kualitas pelayanan, diantaranya membantu merencanakan kebutuhan tempat tidur dan staf, mengidentifikasi secara dini pasien – pasien yang potensial mengalami LTMV sehingga dapat meningkatkan kualitas pelayanan yang diberikan

Tujuan: Penelitian ini dilakukan untuk mengidentifikasi faktor-faktor prediksi LTMV di ICU RSUP Dr.Sardjito. Tujuan jangka panjang penelitian ini adalah mengembangkan suatu model *risk prediction* LTMV di ICU yang berdasarkan pada populasi pasien yang dirawat di RSUP Dr Sardjito.

Metode: Penelitian ini menggunakan rancangan penelitian kohort retrospektif observasional. Variabel yang diduga mempunyai hubungan dengan LTMV diuji dengan dengan analisis bivariat dan *multivariable logistic regression.*

Hasil: Faktor-faktor yang teridentifikasi sebagai faktor risiko terjadinya LTMV pada pasien ICU di RSUP Dr. Sardjito Yogyakarta yang kami dapatkan dari penelitian ini adalah adanya komorbid penyakit pernapasan, diabetes mellitus, riwayat operasi mayor, dan nilai GCS < 8 pada saat awal perawatan dengan nilai $p < 0,05$ baik pada uji bivariat maupun multivariat.

Kesimpulan: Adanya komorbid berupa penyakit pernafasan, DM, riwayat operasi mayor sebelum masuk ICU dan skor GCS < 8 merupakan faktor risiko yang kami dapatkan sebagai prediktor terjadinya LTMV di ICU RSUP Dr. Sardjito Yogyakarta.

Kata kunci : ICU, risk prediction, LTMV

ABSTRACT

Background: *Although mechanical ventilation is the cornerstone of patient care in the ICU, long-term use of mechanical ventilators will increase the cost burden and increase patient morbidity and mortality. The terminology for Long Term Mechanical Ventilation (LTMV) in the ICU is still not agreed upon yet, but some references use the limitation of mechanical ventilation at 96 hours. Predicting the incidence of LTMV in the ICU provides benefits in terms of cost efficiency and quality of service, including helping to plan bed and staff needs and early identification of patients who have the potential to experience LTMV to improve the quality of services provided.*

Objective: *This study aims to identify the predictive factors of LTMV in the ICU at Dr.Sardjito Hospital. The long-term goal of this study is to develop a risk prediction model for LTMV in the ICU based on the patient population being treated at Dr. Sardjito Hospital.*

Methods: *This study was an observational retrospective cohort study design. Variables that are suspected of having a relationship with LTMV will be tested using multivariable logistic regression tests. Furthermore, a calibration test was carried out with Hosmer-Lemeshow to obtain a comparison value between the observed and expected value.*

Result: *The Factors that were identified as risk factors for LTMV in ICU patients at RSUP Dr. Sardjito Yogyakarta that we got from this study were the presence of comorbid respiratory disease, diabetes mellitus, history of major surgery, and a GCS value < 8 at the start of treatment with p-value < 0.05 in both bivariate and multivariate tests.*

Conclusion: *The presence of comorbidities such as respiratory disease, DM, history of major surgery prior to admission to the ICU and a GCS score < 8 were risk factors that we got as predictors of LTMV in the ICU Dr. Sardjito General Hospital Yogyakarta.*

Keywords: *ICU, risk prediction, LTMV*