

# Korelasi modified clinical pulmonary infection score dengan lama ventilasi mekanis pada pasien dengan pneumonia di UPI RSUPM Cipto Mangunkusumo = The correlation of modified clinical pulmonary infection score with mechanical ventilation duration of pneumonia patient in ICU of Cipto Mangunkusumo Hospital

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## Abstrak

### [<b>ABSTRAK</b><br>

Latar Belakang: Parameter ekstubasi yang ada saat ini masih belum akurat sehingga terjadi kesulitan penyapihan ventilasi mekanis pada pasien pneumonia. Salah satu sistem penilaian untuk diagnosis dan evaluasi pneumonia adalah skor modified clinical pulmonary infection score (MCPIS). Skor ini menilai faktor suhu tubuh, hitung jenis dan jumlah leukosit, volume dan sifat sekret trakea, oksigenasi dan rontgen toraks. Pemantauan MCPIS diharapkan dapat menjadi alat bantu untuk penilaian keberhasilan penyapihan, prediktor ekstubasi, serta gambaran prognosis pasien pneumonia di UPI.

Metode: Penelitian ini merupakan studi kohort prospektif pada pasien UPI dengan diagnosis pneumonia dan penggunaan ventilasi mekanis di UPI RSUPN Cipto Mangunkusumo bulan Oktober 2014 sampai Februari 2015. Subjek dengan diagnosis pneumonia yang dirawat di UPI dengan ventilasi mekanis dinilai skor MCPIS pada awal dan setelah 72 jam perawatan. Tanggal pasien diekstubasi dicatat untuk mengetahui lama ventiasi mekanis subjek.

Hasil: Sebanyak 48 subjek diikutsertakan dalam penelitian. Skor MCPIS awal (median 6) secara keseluruhan lebih tinggi dari pada skor MCPIS setelah 72 jam (median 5) dengan lama ventilasi mekanis berkisar 3-19 hari (median 7). Tidak didapatkan korelasi yang bermakna antara skor MCPIS awal dengan lama ventilasi mekanis ( $p=0,180$ ;  $r=0,197$ ). Terdapat korelasi yang bermakna antara skor MCPIS setelah 72 jam dengan lama ventilasi mekanis dengan kekuatan korelasi sedang dan arah korelasi positif ( $p=0,000$ ;  $r=0,539$ ).

Simpulan: Terdapat korelasi bermakna antara skor MCPIS setelah 72 jam dengan lama ventilasi mekanis pada pasien pneumonia di UPI.

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### <b>ABSTRACT</b><br>

Background: Extubation parameters that currently used is not accurate hence weaning from mechanical ventilation is difficult to perform in pneumonia patient so a scoring system is needed. One of scoring system for diagnosis and evaluation pneumonia is modified clinical pulmonary infection score (MCPIS) score. This score evaluates temperature, leucocyte count and differential count, volume and consistency tracheal secret, oxygenation and chest x-ray. MCPIS monitoring can be expected as tool for evaluating weaning process, extubation predictor and prognostic prediction for pneumonia patient in ICU.

Method: This is a prospective cohort study in ICU patient with pneumonia diagnosis and mechanical ventilation in Cipto Mangunkusumo hospital's ICU from October 2014 to February 2015. Subject diagnosed with pneumonia in ICU with mechanical ventilation was scored with early and after 72 hours MCPIS score. Date of extubation was recorded to find out mechanical ventilation duration.

**Result:** A total of 48 subjects enrolled in this study. Early MCPIS score (median 6) was higher than MCPIS score after 72 hours (median 5) with mechanical ventilation duration 3-19 days (median 7). There was no significant correlation between early MCPIS score with mechanical ventilation duration ( $p=0,180$ ;  $r=0,197$ ). There was significant correlation between MCPIS score after 72 hours with mechanical ventilation duration. The strength of correlation was moderate and the direction of correlation was positive ( $p=0,000$ ;  $r=0,539$ ). **Conclusion:** There was significant correlation between MCPIS after 72 hours with mechanical ventilation duration in pneumonia patient in ICU.; **Background:** Extubation parameters that currently used is not accurate hence weaning from mechanical ventilation is difficult to perform in pneumonia patient so a scoring system is needed. One of scoring system for diagnosis and evaluation pneumonia is modified clinical pulmonary infection score (MCPIS) score. This score evaluates temperature, leucocyte count and differential count, volume and consistency tracheal secret, oxygenation and chest x-ray. MCPIS monitoring can be expected as tool for evaluating weaning process, extubation predictor and prognostic prediction for pneumonia patient in ICU.

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