

ABSTRACT

PNEUMONIA RELATED DEATHS IN SLEMAN BASED ON VERBAL AUTOPSY: AN OBSERVATIONAL STUDY

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Background: Pneumonia has long been and remains one of leading causes of death, especially amongst children and elderly. Until this study was released, only the Jakarta province managed to fulfill the national target of pneumonia case findings. Until this study was published, there are limited amounts of studies regarding pneumonia in Indonesia, especially those involving adult study subjects. Thus, it is important to determine which risk factors are relevant to pneumonia deaths in Sleman.

Objectives: To determine the characteristics and prevalence of pneumonia related deaths in Sleman District based on verbal autopsy.

Method: This study is a cross-sectional study using secondary data from HDSS cycles 1 to 7 in Sleman District of Jogjakarta, Indonesia. The study individuals who passed away between 2015 and 2022 aged above 4 weeks (28 days) due to pneumonia meet the criteria for sample inclusion. Any Sleman District HDSS samples with insufficient data was excluded. The Fisher's exact test and Pearson's chi-square test were used to determine the p-value. Comparisons were done using cross-tabulations and prevalence ratio (PR) with 95% confidence interval (CI).

Result: The number of subjects who died due to acute respiratory infections including pneumonia is 65 subjects (33,3%) and the number of subjects who died due to other causes is 130 (66,7%). The prevalence of those who died due to pneumonia is lower for all of the predetermined risk factors, including elderly age (PR 0,879; 95% CI 0,479 – 1,612), male sex (PR 0,520; 95% CI 0,285 – 0,951), low education level (PR 1,000; 95% CI 0,404 – 2,475), high occupational risk (PR 0,413; 95% CI 0,178 – 0,954), smoking history (PR 0,846; 95% CI 0,453 – 1,579), alcohol consumption (PR 0,392; 95% CI 0,018 – 1,802), asthma history (PR 0,915; 95% CI 0,331 – 2,529), COPD history (PR 0,371; 95% CI 0,103 – 1,330), stroke history (PR 0,503; 95% CI 0,159 – 1,581), tuberculosis history (PR 0,210; 95% CI 0,026 – 1,695), hospitalization history (PR 0,496; 95% CI 0,030 – 1,014) and very thin or malnourished body (PR 0,264; 95% CI 0,123 – 0,564) with sex, occupational status & type, and nutritional status being statistically significant.

Conclusion: The prevalence of pneumonia related deaths in the Sleman HDSS VA population is 33,3% with some risk factors which may affect it.

Keywords: Pneumonia, pneumonia mortality, risk factors, verbal autopsy

ABSTRAK

KEMATIAN TERKAIT PNEUMONIA DI SLEMAN BERDASARKAN OTOPSI VERBAL: SEBUAH STUDI OBSERVASIONAL

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Latar belakang: Pneumonia telah lama dan tetap menjadi salah satu penyebab utama kematian, terutama di kalangan anak-anak dan orang tua. Hingga penelitian ini dirilis, hanya provinsi DKI Jakarta yang berhasil memenuhi target nasional penemuan kasus pneumonia. Sampai penelitian ini dipublikasikan, penelitian tentang pneumonia di Indonesia masih terbatas, terutama yang melibatkan subjek penelitian orang dewasa. Oleh karena itu, penting untuk menentukan faktor risiko apa saja yang relevan dengan kematian akibat pneumonia di Sleman.

Tujuan: Mengetahui karakteristik dan prevalensi kematian terkait pneumonia di Kabupaten Sleman berdasarkan autopsi verbal.

Metode: Penelitian ini merupakan studi cross-sectional menggunakan data sekunder dari HDSS siklus 1 sampai 7 di Kabupaten Sleman, Jogjakarta, Indonesia. Individu yang meninggal antara tahun 2015 dan 2022 yang berusia di atas 4 minggu (28 hari) karena pneumonia memenuhi kriteria inklusi sampel. Sampel HDSS Kabupaten Sleman yang datanya tidak mencukupi tidak diikutsertakan. Uji eksak Fisher dan uji chi-square Pearson digunakan untuk menentukan nilai p-value. Perbandingan dilakukan dengan menggunakan tabulasi silang dan rasio prevalensi (PR) dengan interval kepercayaan 95% (CI).

Hasil: Jumlah subjek yang meninggal karena infeksi saluran pernafasan akut termasuk pneumonia adalah 65 subjek (33,3%) dan jumlah subjek yang meninggal karena penyebab lain adalah 130 (66,7%). Prevalensi mereka yang meninggal karena pneumonia lebih rendah untuk semua faktor risiko yang telah ditentukan, termasuk usia lanjut (PR 0,879; 95% CI 0,479 - 1,612), jenis kelamin laki-laki (PR 0,520; 95% CI 0,285 - 0,951), tingkat pendidikan rendah (PR 1,000; 95% CI 0,404 - 2,475), risiko pekerjaan tinggi (PR 0,413; 95% CI 0,178 - 0,954), riwayat merokok (PR 0,846; 95% CI 0,453 - 1,579), konsumsi alkohol (PR 0,392; 95% CI 0,018 - 1,802), riwayat asma (PR 0,915; 95% CI 0,331 - 2,529), riwayat PPOK (PR 0,371; 95% CI 0,103 - 1,330), riwayat stroke (PR 0,503; 95% CI 0,159 - 1,581), riwayat TBC (PR 0,210; 95% CI 0,026 - 1,695), riwayat rawat inap (PR 0,496; 95% CI 0,030 - 1,014) dan tubuh yang sangat kurus atau kurang gizi (PR 0,264; 95% CI 0,123 - 0,564) dengan jenis kelamin, status & jenis pekerjaan, dan status gizi yang signifikan secara statistik.

Kesimpulan: Prevalensi kematian terkait pneumonia pada populasi HDSS VA Sleman adalah 33,3% tanpa ada faktor risiko yang mempengaruhi di studi ini.

Kata kunci: Pneumonia, kematian akibat pneumonia, faktor risiko, autopsi verbal