

# Pengaruh penggunaan proton pump inhibitor jangka panjang terhadap sindrom frailty pada pasien usia lanjut = The effect of long term use of proton pump inhibitor as a risk factor for frailty syndrome among geriatric patients

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## Abstrak

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

Latar Belakang : Sindrom frailty berkaitan dengan angka morbiditas dan kematian yang lebih tinggi, sehingga dipakai sebagai prediktor kesehatan pada orang usia lanjut (usila). Polifarmasi sebagai salah satu faktor risiko sindrom frailty, dapat berkaitan dengan obat PPI yang sering diberikan pada usila, atas indikasi adanya keluhan gangguan saluran cerna bagian atas. Sampai saat ini belum ada penelitian yang mempelajari hubungan PPI jangka panjang dan sindrom frailty pada usila. Penelitian ini diharapkan dapat memberikan data mengenai penggunaan PPI jangka panjang (&#8805; 6 bulan) terhadap risiko sindrom frailty pada usila.

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Metode : Desain studi kasus kontrol dengan kriteria inklusi subjek penelitian 60 tahun ke atas dan berstatus kognitif baik. Kriteria eksklusi adalah data yg tidak lengkap atau terdapat kontraindikasi PPI. Kasus adalah usila terdiagnosis Frailty menurut FI-40 item dan kontrol adalah usila yang tidak frailty berdasarkan instrumen yang sama. Pengambilan data primer termasuk status frailty telah dilakukan bulan Maret-Juni 2013 oleh Seto E dan Sumantri S. Pengambilan data sekunder yang digunakan pada penelitian ini dilakukan pada bulan Oktober-November 2014 dari data primer tersebut, ditambah dengan data dari rekam medis poliklinik Geriatri dan poliklinik diabetes RS Cipto Mangunkusumo.

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Hasil : Didapatkan 225 subjek (75 kasus:150 kontrol), 59,6% berjenis kelamin perempuan (rerata usia 72,14 tahun; simpang baku  $\pm$  6,4 tahun) dan 47,1% berpendidikan tinggi. Subjek yang berpendidikan rendah, berstatus cerai mati, berstatus nutrisi lebih buruk, tidak mandiri, memerlukan caregiver, hidup tidak berkecukupan dan kondisi kesehatan yang lebih buruk lebih banyak didapatkan pada kelompok frailty dibandingkan kelompok yang tidak frail. Proporsi pengguna PPI Jangka Panjang sebesar 40,9%. Penggunaan PPI jangka panjang meningkatkan risiko sindrom frailty (Crude OR 2,15; IK 95% 1,22-3,78;  $p < 0,007$ ) dengan adjusted OR 1,83 (IK 1,0-3,36) terhadap variabel nutrisi dan merokok.

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Kesimpulan : Penggunaan PPI jangka panjang (&#8805; 6 bulan) secara independen meningkatkan salah satu risiko sindrom frailty pada usila.

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<b>ABSTRACT</b><br>

Background: Frailty syndrome as being used as the newest elderly health predictor, associated with higher morbidity and mortality. PPI are often used in elderly due to presence of upper gastrointestinal complaints, and related with polypharmacy as one of the risk factor for frailty syndrome. No study has studied the relationship of long term PPI and frailty syndrome in elderly. The objective of the study is to find whether long term use of PPI (&#8805; 6 months) would increase the risk of frailty syndrome in the elderly.

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Methods: A case control study includes subjects 60 years and above with good cognitive status. All subject with history of hypersensitivity of PPI is excluded. Elderly diagnosed as frailty based in FI-40 item is defined as cases, while individuals that are not frailty are classified as the control. Primary data (included frailty status) was collected on March-June 2013 by Seto E and Sumantri S, et al. Secondary data used in the current study was gathered on October-November 2014, from the primary data above and from the medical record taken from geriatric and diabetic outpatient clinics Cipto Mangunkusumo Hospital.

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Result: There were 225 subjects collected (75 cases : 150 controls), 59,6% were female (mean age 72,14 years old, SD  $\pm$  6,4 years) and 47,1% with higher education. Lower education, divorced, poor nutrition, dependent, needed caregiver, economically insufficient, more comorbidity and poor health condition are seen in frailty group. The proportion of long term PPI use were 40,9%. Long term PPI medication increase the risk of frailty syndrome (Crude OR 2,154; CI 95% 1,225-3,778; p<0,007) with adjusted OR 1,83 (CI 95% 1,02-3,37) after adjusting to nutrition and smoking variables.

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Conclusion: Long term use of PPI significantly increase the risk of frailty syndrome compared to the non-users.;Background: Frailty syndrome as being used as the newest elderly health

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