

**ABSTRAK****KESESUAIAN ANTARA *PERIOPERATIVE NUTRITION SCREEN*  
DENGAN *NUTRITION RISK SCREENING-2002* PADA PASIEN  
PREOPERASI****Cindy Lufika<sup>1</sup>, Etisa Adi Murbawani<sup>2</sup>, Amalia Sukmadianti<sup>3</sup>, Niken  
Puruhita<sup>2</sup>, Khairuddin<sup>3</sup>**<sup>1</sup>Peserta Program Pendidikan Dokter Spesialis Gizi Klinik, Fakultas Kedokteran UNDIP<sup>2</sup>Staf Program Pendidikan Dokter Spesialis Gizi Klinik, Fakultas Kedokteran UNDIP<sup>3</sup>Kelompok Staf Medik Gizi Klinik, RSUP Dr. Kariadi Semarang

**Latar belakang:** Malnutrisi pada pasien yang akan menjalani tindakan operasi merupakan faktor risiko utama terhadap peningkatan angka komplikasi setelah tindakan operasi, pemanjangan lama rawat inap, dan peningkatan mortalitas. Oleh karena itu, deteksi awal risiko malnutrisi sebaiknya dilakukan melalui prosedur penapisan yang tepat. *Perioperative Nutrition Screen* (PONS) dikembangkan sebagai instrumen penapisan sederhana yang dapat diterapkan bagi pasien-pasien perioperatif. Penelitian ini bertujuan untuk mengetahui kesesuaian antara instrumen penapisan PONS dengan *Nutrition Risk Screening* (NRS)-2002 dalam mendeteksi risiko malnutrisi pada pasien yang menjalani prosedur operasi elektif.

**Metode penelitian:** Penelitian ini menggunakan metode observasi analitik dengan pendekatan *cross-sectional* di RSUP Dr. Kariadi Semarang. Sejumlah 84 pasien rawat inap menjadi subjek penelitian. Pemeriksaan risiko malnutrisi menggunakan PONS dan NRS-2002. Analisis hubungan antara alat penapisan dilakukan dengan uji Chi-Square. Analisis diagnostik penggunaan PONS terhadap NRS-2002 dihitung berdasarkan sensitivitas, spesifisitas, nilai duga positif, nilai duga negatif, dan akurasi.

**Hasil penelitian:** Pemeriksaan PONS menunjukkan 67,9% pasien berisiko malnutrisi. Penggunaan NRS-2002 menunjukkan 47,6% berisiko malnutrisi. Hasil analisis Chi-Square memperlihatkan adanya hubungan signifikan antara PONS dan NRS-2002 ( $p < 0,001$ ). Analisis diagnostik menunjukkan bahwa sensitivitas PONS sebesar 100%, spesifisitas 61,36%, nilai duga positif 70,18%, nilai duga negatif 100%, serta akurasi 79,76% terhadap NRS-2002.

**Simpulan:** PONS memiliki hubungan bermakna dengan NRS-2002 dan menunjukkan sensitivitas yang tinggi serta akurasi yang cukup baik dalam mendeteksi risiko malnutrisi pada pasien preoperasi.

**Kata kunci:** malnutrisi, *Perioperative Nutrition Screen* (PONS), *Nutrition Risk Screening-2002* (NRS-2002), pasien operasi elektif

## ABSTRACT

### ***COMPATIBILITY BETWEEN PERIOPERATIVE NUTRITION SCREEN AND NUTRITION RISK SCREENING-2002 IN PREOPERATIVE PATIENTS***

**Cindy Lufika<sup>1</sup>, Etisa Adi Murbawani<sup>2</sup>, Amalia Sukmadianti<sup>3</sup>, Niken Puruhita<sup>2</sup>, Khairuddin<sup>3</sup>**

<sup>1</sup>Participant of Clinical Nutrition Specialist Medical Education Program, Faculty of Medicine UNDIP

<sup>2</sup>Staff of Clinical Nutrition Specialist Medical Education Program, Faculty of Medicine UNDIP

<sup>3</sup>Clinical Nutrition, Dr. Kariadi Hospital, Semarang

**Background:** Poor nutritional status serves as a significant contributor to increased postoperative complications, longer hospital stays, and higher death rates in surgical patients. Therefore, it is essential to implement suitable screening tools to promptly recognize malnutrition risk. The Perioperative Nutrition Screen (PONS) was developed as a simple screening tool applicable in perioperative settings. This research was conducted with the objective of evaluating the concordance between PONS and Nutrition Risk Screening-2002 (NRS-2002) in detecting malnutrition risk among elective surgery patients.

**Methods:** This research method is analytical observational study with a cross-sectional approach at Dr. Kariadi Hospital, Semarang. A total of 84 inpatients were included as research subjects. Malnutrition risk screening was conducted using PONS and NRS-2002. The association between screening tools was analyzed using the Chi-Square test. Diagnostic performance of PONS against NRS-2002 was evaluated based on sensitivity, specificity, positive predictive value, negative predictive value, and accuracy.

**Results:** Screening with PONS identified 67.9% of patients at risk of malnutrition, while NRS-2002 identified 47.6%. A significant association was identified between PONS and NRS-2002 through the Chi-Square analysis ( $p < 0.001$ ). Diagnostic analysis showed that PONS had a sensitivity of 100%, specificity of 61.36%, positive predictive value of 70.18%, negative predictive value of 100%, and an accuracy of 79.76%.

**Conclusion:** PONS demonstrates a significant association with NRS-2002 and shows high sensitivity and good accuracy, suggesting that it can be effectively used for preoperative nutritional risk screening.

**Keywords:** malnutrition, Perioperative Nutrition Screen (PONS), Nutrition Risk Screening-2002 (NRS-2002), elective surgical patients