

## Prostate cancer clinical characteristics and systemic inflammatory indices at RSUD Ciawi in 2023, a preliminary study from a secondary referral hospital

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### ABSTRACT

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Prostate cancer is a leading male malignancy worldwide and remains a growing concern in Indonesia, where it ranks fifth in incidence. Secondary referral hospitals play a pivotal role in bridging primary care and tertiary oncology, yet data on patient profiles in these settings are scarce. This study aimed to describe both the clinical characteristics and systemic inflammatory indices of prostate cancer patients treated at RSUD Ciawi, Bogor, during 2023. Forty-nine patients were included in this retrospective review. The mean age was 68 years (SD 9.0), mean hemoglobin 12.3 g/dL, leukocyte count 8,290/ $\mu$ L, and platelet count 301,893/ $\mu$ L. The mean neutrophil-to-lymphocyte ratio (NLR) was 3.41 (SD 1.75), while the median systemic immune-inflammation index (SII) was 980.6, and systemic inflammation response index (SIRI) was 1.84. Among patients with available data, the median prostate volume was 38 cc, prostate-specific antigen (PSA) was 100 ng/mL, and the Gleason score was 9, consistent with advanced and aggressive disease. Most patients presented with high PSA levels, elevated Gleason scores, and increased inflammatory indices, reflecting delayed diagnosis and the potential contribution of systemic inflammation to disease progression. These findings emphasize the dual importance of clinical and inflammatory profiles in understanding prostate cancer at the secondary referral level. Strengthening screening strategies, improving diagnostic access, and establishing hospital-based registries are needed to optimize management and support future research.

### ABSTRAK

Kanker prostat merupakan salah satu keganasan tersering pada pria di dunia dan menjadi masalah kesehatan yang semakin meningkat di Indonesia, menempati urutan kelima dalam angka kejadian. Rumah sakit rujukan sekunder memiliki peran penting sebagai penghubung antara layanan primer dan onkologi tersier, namun data mengenai profil pasien di tingkat ini masih terbatas. Penelitian ini bertujuan mendeskripsikan karakteristik klinis dan indeks inflamasi sistemik pada pasien kanker prostat yang dirawat di RSUD Ciawi, Bogor, sepanjang tahun 2023. Sebanyak 49 pasien dianalisis dalam studi retrospektif ini. Rerata usia pasien adalah 68 tahun (SD 9,0), dengan rerata hemoglobin 12,3 g/dL, leukosit 8.290/ $\mu$ L, dan trombosit 301.893/ $\mu$ L. Rerata neutrophil-to-lymphocyte ratio (NLR) adalah 3,41 (SD 1,75), sedangkan median systemic immune-inflammation index (SII) 980,6 dan systemic inflammation response index (SIRI) 1,84. Pada pasien dengan data yang tersedia, median volume prostat tercatat 38 cc, prostate-specific antigen (PSA) 100 ng/mL, dan Gleason score 9, menunjukkan penyakit dalam stadium lanjut dan agresif. Mayoritas pasien datang dengan kadar PSA tinggi, Gleason score tinggi, serta indeks inflamasi yang meningkat, mencerminkan keterlambatan diagnosis dan kemungkinan kontribusi inflamasi sistemik terhadap progresivitas penyakit. Temuan ini menegaskan pentingnya penilaian karakteristik klinis dan indeks inflamasi untuk mengidentifikasi risiko serta progresivitas kanker prostat di fasilitas rujukan sekunder. Penguatan program skrining, peningkatan akses diagnostik, dan pengembangan registri kanker berbasis rumah sakit sangat diperlukan untuk mengoptimalkan tata laksana dan mendukung penelitian di masa depan.

### Keywords:

Prostate cancer;  
secondary referral  
hospital;  
systemic inflammatory  
indices;  
cancer registry;  
Indonesia