



## INTISARI

**Latar Belakang:** Lepra masih menjadi tantangan kesehatan masyarakat; Indonesia adalah penyumbang kasus terbesar ketiga di dunia. Cacat derajat 2 mencerminkan kerusakan saraf perifer yang *irreversible*. Kejadian ini dipengaruhi faktor langsung (tipe multibasiler/MB, indeks bakteri tinggi, reaksi lepra) serta faktor tidak langsung (usia, jenis kelamin, dan keterlambatan diagnosis). Meskipun sejumlah studi telah meneliti faktor-faktor ini, belum ada yang secara spesifik menelaahnya di wilayah endemis rendah seperti Yogyakarta. Sebagai rumah sakit rujukan nasional, RSUP Dr. Sardjito memiliki populasi pasien yang beragam. Studi ini bertujuan mengevaluasi hubungan berbagai faktor risiko terhadap cacat derajat 2 untuk memperkuat skrining dan penatalaksanaan berbasis bukti.

**Tujuan:** Mengidentifikasi hubungan berbagai faktor risiko terhadap cacat derajat 2 pada pasien lepra di RSUP Dr. Sardjito, Yogyakarta.

**Metode:** Studi observasional analitik desain kasus-kontrol menggunakan data rekam medis pasien lepra yang dirawat tahun 2021–2024. Sampel 145 subjek (kasus cacat derajat 2 = 32; kontrol cacat derajat 0–1 = 113). Variabel independen: usia, jenis kelamin, durasi diagnosis, tipe lepra (WHO/Ridley-Jopling), indeks bakteri, dan reaksi lepra. Analisis bivariat (Chi-square/Fisher) dilanjutkan regresi logistik; hasil signifikan  $p < 0,05$ .

**Hasil:** Berdasarkan analisis didapatkan durasi diagnosis  $>24$  bulan (OR 6,65; 95% CI 2,69–16,42;  $p < 0,001$ ), reaksi lepra (OR 3,40; 95% CI 1,46–7,92;  $p = 0,003$ ), dan usia  $>50$  tahun (OR 2,47; 95% CI 1,09–5,63;  $p = 0,028$ ) sebagai faktor risiko terhadap cacat derajat 2; sedangkan tipe WHO, indeks bakteri  $\geq 4+$ , tipe Ridley–Jopling, dan jenis kelamin bukan merupakan faktor risiko. Hasil tersebut diperkuat dengan analisis multivariat, faktor risiko yang signifikan secara statistik adalah durasi diagnosis  $>24$  bulan (OR 7,03; 95% CI 2,667–18,553;  $p < 0,001$ ), reaksi lepra (OR 4,05; 95% CI 1,565–10,493;  $p = 0,004$ ) dan usia  $>50$  tahun (OR 2,78; 95% CI 1,098–7,058;  $p = 0,031$ ).

**Kesimpulan:** Durasi diagnosis  $>24$  bulan, reaksi lepra, dan usia  $>50$  tahun merupakan faktor risiko cacat derajat 2 di RSUP Dr. Sardjito Yogyakarta. Tipe lepra (MB dan BL-LL), IB  $>4+$ , dan jenis kelamin laki-laki tidak terbukti sebagai faktor risiko cacat derajat 2 pada pasien lepra di RSUP Dr. Sardjito Yogyakarta.

**Kata kunci:** Lepra, Cacat derajat 2, Faktor risiko, Durasi diagnosis, Reaksi lepra.



## **ABSTRACT**

**Background:** *Leprosy remains a major public health challenge, with Indonesia ranking as the third-largest contributor to global cases. Grade 2 disability (G2D) reflects irreversible peripheral nerve damage. Its occurrence is influenced by direct factors, such as multibacillary (MB) type, high bacterial index (BI), and leprosy reactions, as well as indirect factors, including age, sex, and diagnostic delay. Although several studies have examined these factors, none have specifically investigated them in low-endemic areas such as Yogyakarta. As a national referral hospital, Dr. Sardjito General Hospital serves a diverse patient population. This study aims to evaluate the association between various risk factors and G2D to strengthen evidence-based screening and management strategies.*

**Objective:** *To identify the association between multiple risk factors and Grade 2 disability among leprosy patients at Dr. Sardjito General Hospital, Yogyakarta.*

**Method:** *This was an analytical observational study with a case-control design, utilizing medical record data of leprosy patients treated between 2021 and 2024. A total of 146 subjects were included (G2D cases = 32; controls with Grade 0–1 disability = 113). Independent variables comprised age, sex, diagnosis duration, leprosy type (WHO and Ridley–Jopling classifications), bacterial index, and leprosy reactions. Bivariate analysis (Chi-square/Fisher’s exact test) was followed by logistic regression;  $p$ -value  $<0.05$  was considered statistically significant.*

**Results:** *Based on the analysis, a duration of diagnosis longer than 24 months (OR 6.65; 95% CI 2.69–16.42;  $p<0.001$ ), leprosy reaction (OR 3.40; 95% CI 1.46–7.92;  $p=0.003$ ), and age over 50 years (OR 2.47; 95% CI 1.09–5.63;  $p=0.028$ ) were identified as risk factors for grade 2 disability, whereas WHO classification, bacterial index  $\geq 4+$ , Ridley–Jopling type, and sex were not associated as risk factors. These findings were further confirmed by multivariate analysis, which demonstrated that a duration of diagnosis longer than 24 months (OR 7.03; 95% CI 2.667–18.553;  $p<0.001$ ), leprosy reaction (OR 4.05; 95% CI 1.565–10.493;  $p=0.004$ ), and age over 50 years (OR 2.78; 95% CI 1.098–7.058;  $p=0.031$ ) were statistically significant risk factors.*

**Conclusion:** *The duration of diagnosis  $>24$  months, leprosy reaction, and age  $>50$  years are risk factors for degree 2 disability at Dr. Sardjito Yogyakarta Hospital. Leprosy type (MB and BL–LL, IB  $>4+$ ), and male sex were not proven to be risk factors for degree 2 disability in leprosy patients at Dr. Sardjito General Hospital Yogyakarta.*

**Keywords:** *Leprosy, Grade 2 disability, Risk factors, Diagnostic delay, Leprosy reaction.*