

## ABSTRAK

Dwi Hidayah Septiana

INSIDENSI KOINFEKSI *Treponema pallidum* TERHADAP PEMERIKSAAN  
VIRAL LOAD PENDERITA *HUMAN IMMUNODEFICIENCY VIRUS* DI  
PUSKESMAS MAOSPATI KABUPATEN MAGETAN  
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Infeksi Menular Seksual (IMS) adalah isu kesehatan global yang semakin berkembang dengan lebih dari 374 juta kasus baru setiap tahunnya. Di antara IMS, infeksi *Human Immunodeficiency Virus* (HIV) termasuk salah satu yang paling berpengaruh, dengan 38 juta individu terinfeksi di seluruh dunia pada tahun 2022. Di Kabupaten Magetan, kasus HIV meningkat dari 44 menjadi 102 dalam satu tahun. Koinfeksi HIV dengan *Treponema pallidum* penyebab sifilis dapat memperburuk kesehatan dan meningkatkan *viral load*. Penelitian ini bertujuan untuk mengidentifikasi keberadaan insidensi koinfeksi *Treponema pallidum* terhadap pemeriksaan *viral load* penderita *Human Immunodeficiency Virus* menggunakan Metode RPR (*Rapid Plasma Reagin*) sifilis. Penelitian ini tergolong observasional dengan pendekatan *kohort* dan pengambilan sampel memakai teknik *purposive sampling*. Sampel penelitian terdiri dari 36 pasien HIV dengan data nilai *viral load* yang diperoleh dari data rekam medis Puskesmas Maospati, Kabupaten Magetan. Dari 36 sampel yang diperiksa, terdapat 3 (8%) penderita HIV yang terinfeksi sifilis. Hasil analisis statistik menunjukkan adanya hubungan positif dengan korelasi yang sedang antara koinfeksi *Treponema pallidum* terhadap hasil pemeriksaan *viral load* penderita *Human Immunodeficiency Virus* di Puskesmas Maospati dengan nilai Signifikan (2-tailed) yakni 0,014 yang menunjukkan bahwa nilai  $P < 0,05$ . Berdasarkan pada hasil dari analisis tentang insidensi koinfeksi *Treponema pallidum* terhadap pemeriksaan *viral load* penderita *Human Immunodeficiency Virus* di Puskesmas Maospati Kabupaten Magetan, dapat disimpulkan bahwa terdapat korelasi positif antara koinfeksi *Treponema pallidum* terhadap hasil pemeriksaan *viral load* penderita *Human Immunodeficiency Virus* di Puskesmas Maospati.

Kata Kunci : *Viral Load*, Koinfeksi Sifilis, *Treponema pallidum*

## ABSTRACT

Dwi Hidayah Septiana

*INCIDENCE OF TREPONEMA PALLIDUM COINFECTION IN RELATION TO VIRAL LOAD EXAMINATION IN HUMAN IMMUNODEFICIENCY VIRUS PATIENTS AT MAOSPATI COMMUNITY HEALTH CENTER, MAGETAN REGENCY*

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*Sexually Transmitted Infections (STIs) represent a growing worldwide health issue, with over 374 million new cases documented each year. Among these, Human Immunodeficiency Virus (HIV) is one of the most significant, affecting around 38 million people globally as of 2022. In Magetan Regency, the HIV case count rose dramatically from 44 to 102 in just one year. A significant complication is the co-infection of HIV with Treponema pallidum, the bacterium responsible for syphilis. This co-infection can deteriorate the patient's health status and lead to a rise in HIV viral load. This research seeks to determine the prevalence of Treponema pallidum co-infection and its relationship with viral load levels in HIV patients, employing the Rapid Plasma Reagin (RPR) technique for syphilis detection. The study design is observational utilizing a cohort method, and the sampling technique employed is purposive sampling. The study involved 36 HIV-positive patients for whom viral load data was accessible, sourced from medical records at Maospati Primary Health Center (Puskesmas) in Magetan Regency. Out of the 36 samples analyzed, 3 patients (8%) were identified as co-infected with syphilis. Statistical evaluation showed a moderate positive correlation between co-infection with Treponema pallidum and HIV viral load, with a two-tailed significance value of 0.014, indicating  $P < 0.05$ . Conclusion : A notable relationship exists between Treponema pallidum co-infection and heightened HIV viral load in individuals at Maospati Primary Health Center. These results emphasize the significance of early identification and treatment of syphilis co-infection in HIV care.*

**Keywords:** *Viral Load, Syphilis Co-Infection, Treponema pallidum*