

# Faktor prediktor awal kegagalan virologis pada pasien dengan infeksi human immunodeficiency virus yang mendapat terapi antiretroviral lini pertama dengan adherens baik = Early predictive factor of virological failure in hiv patients receiving first line antiretroviral therapy with good adherence

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## Abstrak

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

Latar Belakang: Terapi antiretroviral (ARV) terbukti secara efektif dapat menekan replikasi HIV.

Pengukuran viral load (VL) merupakan prediktor yang lebih baik dibanding kriteria klinis atau imunologis untuk menilai kegagalan atau keberhasilan terapi ARV. Karena keterbatasan sumber daya, maka pemeriksaan VL tidak selalu mudah untuk diakses oleh pasien HIV yang mendapat terapi ARV sehingga perlu untuk diketahui faktor-faktor pada pasien yang dapat memprediksi terjadinya kegagalan virologis.

Tujuan: Mengetahui faktor prediktor kegagalan virologis pada pasien HIV yang mendapat terapi ARV lini pertama sesuai paduan ARV terbaru di Indonesia.

Metode: Penelitian ini merupakan studi kohort retrospektif pada pasien HIV rawat jalan dewasa di RSCM yang mulai terapi ARV lini pertama selama periode Januari 2011-Juni 2014. Pasien HIV yang mempunyai data VL 6-9 bulan setelah mulai terapi ARV dengan kepatuhan berobat baik dimasukkan sebagai subjek penelitian. Kegagalan virologis dinyatakan sebagai nilai VL >= 400 kopi/mL setelah minimal 6 bulan terapi ARV dengan kepatuhan berobat baik. Paduan ARV yang digunakan terdiri dari dua NNRTI (salah satu dari TDF/AZT/d4T ditambah 3TC) dengan satu NNRTI (NVP atau EFV). Usia, faktor risiko penularan HIV, stadium klinis HIV menurut WHO, ko-infeksi TB, indeks massa tubuh, kadar hemoglobin, dan jumlah CD4 awal terapi serta basis paduan terapi ARV merupakan variabel yang diteliti pada penelitian ini.

Hasil: Terdapat 197 pasien sebagai subjek penelitian ini. Kegagalan virologis didapatkan pada 21 pasien (10,7%). Semua variabel yang diteliti belum terbukti dapat memprediksi kegagalan virologis pada pasien HIV yang mendapat terapi ARV lini pertama dengan adherens baik. Terdapat peningkatan risiko kegagalan virologis pada pasien dengan usia yang lebih muda, faktor risiko penularan, stadium klinis lanjut, adanya ko-infeksi TB, dan paduan ARV TDF+3TC+NVP tetapi tidak bermakna secara statistik.!!

Simpulan: Dari variabel yang diteliti, tidak didapatkan variabel yang terbukti sebagai prediktor awal kegagalan virologis pada pasien HIV yang mendapat terapi ARV lini pertama dengan adherens baik.

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<b>ABSTRACT</b><br>

Background: Antiretroviral therapy (ART) effectively suppress HIV replication. Viral load (VL) measurement is better predictor than clinical or immunological criteria to evaluate failure or success of ART. However, in the country with limited resources, VL measurement is not easily accessible by HIV patients receiving ARV therapy therefore it is necessary to know which factors in the patients that can predict virological failure.

Objectives: To know early predictive factor of virological failure in HIV patients receiving recent first line ARV therapy regimen in Indonesia

**Methods:** This study was a retrospective cohort study among adult HIV patients in Out-patient Clinic of Cipto Mangunkusumo General Hospital that started ARV therapy during periode January 2011-June 2014. HIV patients with good adherence that have VL data 6-9 months after initiation of ARV therapy were included in this study. Virological failure was defined as VL  $\geq$  400 copies/mL after minimum of 6 months therapy with good adherence. ARV regimen used in this study consist of two NRTI (one of TDF/AZT/d4T plus 3TC) combined with one NNRTI (NVP or EFV). Age, risk factor for HIV infection, HIV clinical stage, HIV- TB co-infection, baseline CD4 value, hemoglobin level, body mass index, and ARV therapy regimen at the time of initiation were among the variables that analyzed in this study.

**Results:** There are 197 patients as subjects in this study. Virological failure was found in 21 patients (10,7%). All the variables included in this study can not predict virological failure in HIV patients receiving first line ART with good adherence. There is increase risk of virological failure in patients with younger age, IDU as risk factor for HIV infection, late clinical stage, TB co-infection, and ARV regimen TDF+3TC+NVP but not reaching statistically significant.

**Conclusion:** There is no variable in this study proved to be early predictive factor for virological failure in HIV patients receiving first line ART with good adherence.;**Background:** Antiretroviral therapy (ART) effectively suppress HIV replication. Viral load (VL) measurement is better predictor than clinical or immunological criteria to evaluate failure or success of ART. However, in the country with limited resources, VL measurement is not easily accessible by HIV patients receiving ARV therapy therefore it is necessary to know which factors in the patients that can predict virological failure.

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