



## Prevalence of HIV-1 drug resistance in treated patients with viral load >50 copies/mL in 2009: a French nationwide study

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**BACKGROUND:** Surveillance of HIV-1 drug resistance in treated patients with plasma viral load (VL) >50 copies/mL.

**METHODS:** The protease and reverse transcriptase (RT) genes were systematically sequenced in samples from 756 patients with VL >50 copies/mL in 2009. The genotyping results were interpreted for each antiretroviral drug (ARV) by using the ANRS algorithm v21. Weighted analyses were used to derive representative estimates of percentages of patients. Prevalence rates were compared with those obtained in 2004 among patients with VL >1000 copies/mL.

**RESULTS:** Sequences were obtained for 506 patients. Sequencing was successful in 45%, 80% and 96% of samples with VL of 51-500, 501-1000 and >1000 copies/mL, respectively. Resistance or possible resistance to at least one ARV was observed in 59% of samples. Overall, 0.9% of samples contained viruses resistant to all drugs belonging to at least three drug classes. All resistance prevalence rates were significantly lower in 2009 than in 2004.

**CONCLUSION:** In France, where 86% of patients were receiving combination antiretroviral therapy in 2009, only 15.0% of patients had a VL >50 copies/mL, suggesting that only 8.9% of treated patients could potentially transmit resistant viruses. Only 0.08% of patients harboured viruses fully resistant to at least three antiretroviral drug classes. Further studies are needed to determine whether resistance continues to decline over time.

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