Antiretroviral Therapy and HIV-1 Drug Resistance in the US

INTRODUCTION

Drug resistance in human immunodeficiency virus (HIV-1) • Drug resistance can occur in patients failing on therapy (primary resistance). Furthermore, drug-resistant HIV-1 can be transmitted from person to person, increasing the risk of failed therapy. • Drug resistance is a major clinical concern and important indicator of the current antiretroviral (ART) ladder. • Adherence to effective ART can prevent the emergence of drug resistance. • Adherence to ART is crucial to maintaining efficacy of HIV-1 treatment and reducing the risk of drug resistance.

What are the challenges of HIV-1 care in the US? • Adherence to ART is critical to maintaining the efficacy of HIV-1 treatment and reducing the risk of drug resistance. • Adherence to ART is challenging due to various factors such as depression, social support, number of ARTs, time on ART, provider communication, and other factors, such as age, gender, education, income, alcohol use, illicit drug use, and ART adherence in the US to help inform treatment choices in areas of the country where adherence is low and resistance is high.

OBJECTIVE

To investigate disparities associated with or related to ART adherence, resistance, and/or HIV-1–related outcomes (prevalence, mortality, and/or morbidity).

METHODS

Drugs resistant in human immunodeficiency virus (HIV-1) • Drug resistance can occur in patients failing on therapy (primary resistance). Furthermore, drug-resistant HIV-1 can be transmitted from person to person, increasing the risk of failed therapy. • Drug resistance is a major clinical concern and important indicator of the current antiretroviral (ART) ladder. • Adherence to effective ART can prevent the emergence of drug resistance. • Adherence to ART is crucial to maintaining efficacy of HIV-1 treatment and reducing the risk of drug resistance. • Adherence to ART is challenging due to various factors such as depression, social support, number of ARTs, time on ART, provider communication, and other factors, such as age, gender, education, income, alcohol use, illicit drug use, and ART adherence in the US to help inform treatment choices in areas of the country where adherence is low and resistance is high.

RESULTS

What challenges do patients face in the US? • Patients face various challenges in accessing care and maintaining adherence to ART. • The prevalence of resistance was defined as the proportion of isolates in the population with a genotypic assessment for resistance to any class of antiretroviral drugs with a genetic barrier to resistance. • Resistance was also correlated with higher HIV-1 prevalence and adherence to ART at the state level.

CONCLUSIONS

Limitations • State-level data on HIV-1 mortality, poverty, and unemployment were associated with poor adherence to ART in the US. • State-level data on HIV-1 mortality, poverty, and unemployment were associated with poor adherence to ART in the US.

ACKNOWLEDGMENTS

Disclosures

References

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