Introduction

The U.S. Health Resources and Services Administration HIV/AIDS Bureau (HAB) created Core Clinical Performance Measures that healthcare providers can utilize to assess the quality of HIV care.

The Medical Monitoring Project (MMP) is a national surveillance project designed to generate representative data on persons living with HIV (PWH) who receive medical care.

The MMP is designed to provide prevalence estimates for sentinel needs, access to care, risk behaviors, treatment and adherence, clinical outcomes, reproductive history and prevention services among PWH receiving medical care through patient interviews and medical record abstractions (MRA).

Methods

2000 Texas MMP MRA data were analyzed to ascertain the provision of HIV care in comparison with selected HAB clinical measures and the Institute for Healthcare Improvement (IHI) targets for those same measures.

This analysis examined selected IAB measures for MMP participants who received care in the state of Texas. Houston MMP is linked separately, thus Houston data is excluded from this analysis. A three-stage randomized cluster design was used to sample sites, medical facilities and patients. 359 of 400 sampled patient MRAs were completed at 29 Texas facilities. The clinical measures evaluated during the measurement year included:

- Percentage of patients who had two or more CD4 T-lymphocyte counts performed
- Percentage of patients with HIV infection who had two or more medical visits in an HIV care setting
- Percentage of patients with HIV infection and CD4 T-lymphocyte count below 200 cells/mm^3 who were prescribed Prophylaxis for persons with AIDS who were prescribed HAART nuclear
- Percentage of patients who had two or more medical visits in the SP

This analysis used weighted analyses conducted using weighted data. All percentages are weighted for the probability of selection and non-response bias adjustments.

Association between demographic variables and clinical measures were tested using log-Rank chi square at p<0.05 using SAS Version 9.2.

Results

Of the 359 medical charts reviewed, the majority of Texas MMP participants were male, white, and between 40 and 49 years of age:

Discussion

Of the IAB core clinical performance measures examined in this study, healthcare providers in Texas exceeded the IHI target for patients with AIDS (97% versus 90%).

However, 75% of individuals with a CD4 count ≥200 sustained in the SP were prescribed PCP prophylaxis, below the IHI target of 95%.

Furthermore, 79% of MMP participants had two or more CD4 T-lymphocyte counts done during the SP, also below the IHI target of 90%.

Black, non-Hispanic MMP participants were less likely to have had at least two or more CD4 T-lymphocyte counts, compared to individuals of other race/ethnicity groups.

Although a small proportion of participants had less than two medical visits during the SP, Black, non-Hispanics represented the majority (Rao-Scott χ^2 = 5.671 p=0.0174).

Conclusions

HIV-positive patients with CD4 T-lymphocyte counts ≥200 are highly susceptible to PCP infection. Texas MMP participants did not meet the IHI goal for receiving PCP prophylaxis but this may have been due to the way PCP prophylaxis was measured in this analysis (see Limitations).

Treatment as prevention is the new hope for stopping HIV by lowering the amount of virus in the body through regular, ongoing medical care and treatment. The high percentage of cases during the SP and prescription of HAART to patients with an AIDS diagnosis, in line with the HAB core clinical performance measures, shows excellent progress among Texas HIV providers toward that end. However, not all racial groups receive care equally, with Black non-Hispanic patients receiving less care than other racial groups.

To provide a more complete picture of the care that HIV-infected Texas residents receive, future studies should incorporate Houston MMP data and include patient medical history since HIV+ diagnosis and the start of medical care.

Limitations

This information is a snapshot of the healthcare provided to HIV-positive individuals in the state of Texas (excluding Harris County) and cannot be generalized beyond this geographic region.

For this analysis, the calculation of the number of CD4 counts during the SP was more lenient in time than the IAB criterion of at least six months apart between CD4 counts, therefore the proportion in this study is likely to be higher than if the original IAB CD4 dosage had been used. Description of PCA prophylaxis may be underestimated. MMP abbreviation guidelines require that PCP prophylaxis be documented as such as the dosage of medications in noted indicating prophylactic treatment; documentation of the medications dose is not sufficient.

Acknowledgments: Texas MMP

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Adherence to HIV clinical treatment guidelines among healthcare providers in Texas

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