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Use of Psychotropic Medications Among HIV-Infected Patients with Substance-Related Disorders

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INTRODUCTION

Human Immunodeficiency Virus (HIV) detrimentally affects the organ systems of the body. Previous data on the patients in this study show that majority of them, all of whom are HIV positive (+), are being treated for a Central Nervous System (CNS) disorder. We want to further analyze the CNS disorders for which 40% of these patients are being treated. Past statistics have indicated that many patients who are HIV+ have substance related disorder (SRD). It is suggested that there may be an interaction between SRD and CNS medication use in HIV infection.

OBJECTIVES

- To investigate the prevalence of different CNS medications.
- To investigate the relationship between SRD, antiretroviral use, and CNS medications.

METHODS

- HIV+ patients (n=189) recruited from Cleveland, Miami, New York City, and Rochester from 2003 to 2007
- Antiretrovirals (ARV) taken by patients: efavirenz (EFV), atazanavir (ATV), lopinavir+ritonavir (LPV)
- Information obtained from TDM database (TDM.buffalo.edu, accessed in June 2011)
- The following CNS medications (n=331) included in this analysis:
  - Addiction therapies
  - Anticonvulsants
  - Antidepressants
  - Anti-anxiety drugs

DATA

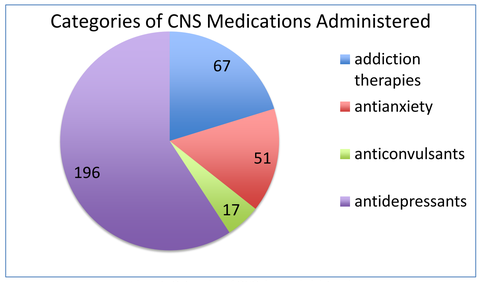

Figure1: Categories of CNS drugs administered

Medications Administered to Treat the Various Disorders

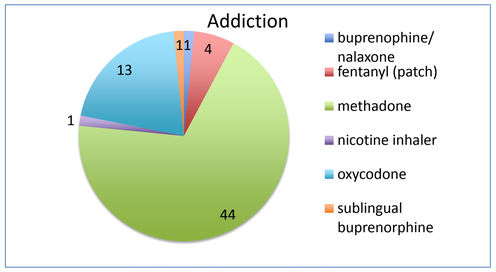

Figure 2: Medications prescribed for addictions

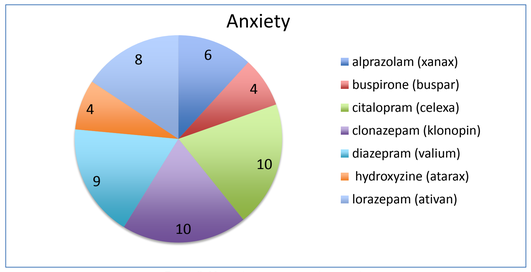

Figure 3: Medications prescribed for anxiety

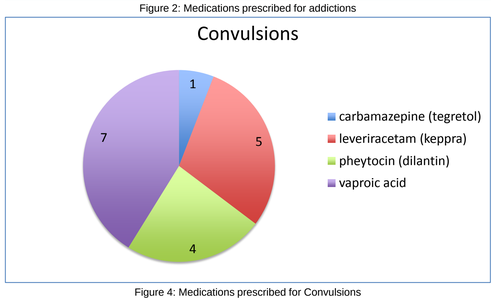

Figure 4: Medications prescribed for Convulsions

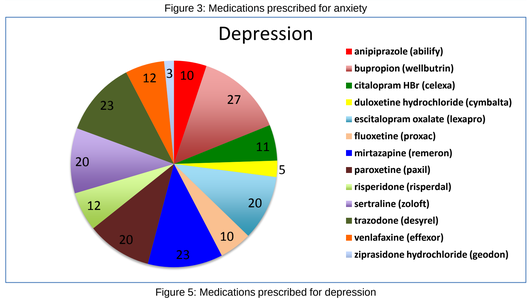

Figure 5: Medications prescribed for depression

CNS Medications vs. Antiretroviral Medications

Table 1: In all patients

	LPV (n=63)	ATV (n=84)	EFV (n=69)	Other (n=73)	Total (n=289)
Depression	34 (54%)	45 (54%)	35 (51%)	31 (44%)	145 (50%)
Addiction	16 (25%)	16 (19%)	11 (16%)	12 (17%)	55 (19%)
Anxiety	8 (13%)	10 (12%)	12 (17%)	13 (19%)	43 (15%)

Table 2: Patients with SRD

	LPV (n=34)	ATV (n=41)	EFV (n=30)	Other (n=30)	Total (n=135)
Depression	19 (56%)	25 (61%)	18 (60%)	16 (53%)	78 (58%)
Addiction	13 (38%)	10 (24%)	7 (23%)	10 (33%)	40 (30%)
Anxiety	4 (12%)	6 (15%)	6 (20%)	8 (27%)	24 (18%)

Table 3: Patients without SRD

	LPV (n=29)	ATV (n=43)	EFV (n=39)	Other (n=43)	Total (n=154)
Depression	15 (52%)	20 (47%)	17 (44%)	15 (35%)	67 (44%)
Addiction	3 (10%)	6 (14%)	4 (10%)	2 (5%)	15 (10%)
Anxiety	4 (13%)	4 (9%)	6 (15%)	5 (12%)	19 (12%)

CONCLUSIONS

- Figure 1 shows that 196 out of 331 (59%) of the CNS medications administered are for depression
- Table 1 shows that 50% of these patients are taking antidepressants
- Tables 2 and 3 compare values in patients with and without SRD and show that depression is prevalent in both populations
- Those with SRD have higher percentages taking CNS medications than those without SRD
- Three times as many patients with SRD are being treated for addiction than those without

FUTURE STUDIES

- Drug interactions between antidepressants and antiretroviral therapy
- Interactions between substances of abuse, additional treatment, and antiretroviral agents
- Optimization of CNS medications use among HIV+ patients

REFERNCES

"Therapeutic Drug Monitoring of Protease Inhibitors and Efavirenz in HIV-Infected Individuals With Active Substance-Related Disorders." *Therapeutic Drug Monitoring 33.3 June (2011): 309-14. Web. 201*

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