



CASEY HOUSE inspired HIV AIDS care



Drug Therapy Problems in Complex HIV/AIDS Patients: Identification and Management by a Pharmacist at a Community HIV/AIDS Hospital

Presented by:

Denise Kreutzwiser, BScH, BScPhm, ACPR, AAHIVP 2015-2016 HIV Pharmacy Specialty Resident, Toronto General Hospital and McGill University Health Centre in conjunction with the University of Toronto

Study Team: Denise Kreutzwiser, Alice Tseng, Nancy Sheehan, Sharan Lail, Soo Chan Carusone, and Ann Stewart



Presenter Disclosure

- Relationships with commercial interests:
 - Speaking honorarium from AbbVie (2014)

Background

 Pharmacist impact at a community HIV/AIDS hospital is not well described in the literature



- Casey House
 - 13 bed community hospital in Toronto
 - In-patient program is solely dedicated to HIV positive individuals admitted for sub-acute, palliative, or respite care
 - Limited pharmacist services available
- As part of an HIV specialty pharmacy residency rotation, pharmacist services were available for 2.5 days/week in Sept. Oct. 2015

Primary Study Objectives

- Characterize the number, types, and clinical significance of the drug therapy problems (DTPs) addressed by the pharmacist at Casey House
- Determine the acceptance rate of the pharmacist's recommendations

Methods

- Retrospective chart review of patients admitted to Casey House between Sept. 1 and Oct. 30, 2015 who underwent pharmacist review
- To assess DTP clinical significance:
 - An expert panel of 4 HIV specialists independently ranked the DTPs addressed by the pharmacist at Casey House for:
 - Likelihood to cause <u>harm</u> if the DTP was not addressed
 - <u>Severity</u> rating if the DTP was not addressed
 - Majority panel rankings were reported

Results

16 patients were included in this study

Type of Admission Respite stay 6% General stay 94%

Reason for Admission



Patient Demographics

Result	Characteristic at Admission	n	%
88%	Detectable HIV viral load	11	73
49 years	(<i>N=15; data unavailable for 1</i> patient)		
, 18 vears	CD4 count < 200 cells/mm ³	10	63
20 years	Taking ARV therapy	9	56
0	ARV adherence issues	6	38
5		•	50
1.5	Taking opportunistic infection (OI) treatment	6	38
49 days		6	28
	Result 88% 49 years 18 years 8 1.5 49 days	ResultCharacteristic at Admission88%Detectable HIV viral load (N=15; data unavailable for 1 patient)49 yearsCD4 count < 200 cells/mm³	ResultCharacteristic at Admissionn88%Detectable HIV viral load (N=15; data unavailable for 1 patient)1149 yearsCD4 count < 200 cells/mm³

72 DTPs were addressed by the pharmacist in 15/16 (94%) patients

Median # of DTPs/patient: 4 [range: 1-12]

Percentage of DTPs According to Medication Category



DTPs Addressed by the Pharmacist

Types of DTP	n	%
Need for drug monitoring (for efficacy/safety)	19	26
Use of a drug without an indication	18	25
Presence of an untreated condition	11	15
Adverse drug reaction	9	13
Dosing related: Subtherapeutic dosage Supratherapeutic dosage	4 3	6 4
Drug interaction	6	8
Improper administration	4	6
Failure to receive drug	4	6
Non-conformity to guidelines or contraindication	3	4

Majority Panel Rankings



DTP Management

81 recommendations were made by the pharmacist

Types of DTP Management Recommendations	n	%
Drug monitoring (for efficacy/safety)	21	26
Drug discontinuation	20	25
Dose adjustment	9	11
Addition of a new drug	6	7
Drug administration optimization	4	5
Drug switch	4	5
Change of administration route	1	1
Other (e.g., adherence support, referral to another health care provider, communication with the community pharmacy at discharge, etc.)	16	20

Acceptance rate of DTP Management Recommendations



Discussion: Patient Population

- Casey House patients are complex
 - high levels of chronic medical and psychosocial morbidity
 - advanced, long-standing HIV infection with detectable viral load and CD4 count < 200 cells/mm³
 - suboptimal ARV uptake
 - struggles with ARV adherence
- This patient population
 - comprises those most likely to be in the 10-10-10 group rather than the 90-90-90 group of the UNAIDS testing, treatment, and viral suppression strategy

Discussion: DTPs

- Most DTPs had a potential risk of causing at least moderate harm if not addressed
- Majority of DTPs involved non-HIV/OI medications
- Drug interactions only accounted for 8% of DTPs
- High prescriber acceptance rate for pharmacist recommendations

Conclusions

- A high prevalence of DTPs was observed in this complex HIV/AIDS population
- Expert panel ratings suggest the majority of DTPs were likely to adversely affect patient outcomes if not addressed
- The 79% physician acceptance rate of pharmacist recommendations suggests the pharmacist makes an impact in this setting
- Enhanced pharmacist engagement is needed in community hospitals serving complex HIV/AIDS patients
 - Plans are underway at Casey House to expand the provision of pharmacist services and optimize the medication management system