

Unrecognised interactions between antiretrovirals (ART) and concomitant chronically administered medication in a managed health care program in Southern Africa

L. Regensberg¹, S. Andrews², C. Pead¹, G. Maartens³, S. Nortier¹¹Medscheme Integrated Care Division, Cape Town, South Africa²Brooklyn Medical Centre, Cape Town, South Africa³Department of Medicine, University of Cape Town, South Africa

Leon Regensberg, MD

Fax: +27 21 658-6426

E-mail: lregensberg@pbm.co.za

INTRODUCTION

Aid for AIDS (AfA) is the largest private sector HIV/AIDS disease management program in Africa with members receiving managed access to ART.

Recent price reductions have enabled access to non-nucleoside reverse transcriptase

inhibitors (NNRTI) or protease inhibitors (PI). Members of contracted health plans also have benefits for chronic medication via a Drug Utilisation Review (DUR) program.

For confidentiality reasons, enrolment of patients on the DUR program is independent of

AfA. The physician enrolling the patient on the DUR program is often not the HIV treater. The potential therefore exists for unrecognised significant drug interactions.

METHODS

The database of AfA members currently on ART was screened to identify those receiving a PI or a NNRTI who were also enrolled on the DUR program taking chronic medications with documented potential for drug-drug interactions.

Interactions requiring dose adjustment or drug avoidance were identified using a drug interaction website (www.hiv-druginteractions.org). The information is supplied and monitored by the Liverpool HIV Pharmacology group (University of Liverpool).

RESULTS

NNRTI Interactions

NUMBER OF PATIENTS TAKING A NNRTI 6289

EFAVIRENZ	62.8%
NEVIRAPINE	37.2%

NUMBER OF PATIENTS ALSO REGISTERED ON DUR PROGRAMME 826

NUMBER OF INTERACTING DRUGS 211

NUMBER OF PATIENTS WITH INTERACTIONS 196

PI Interactions

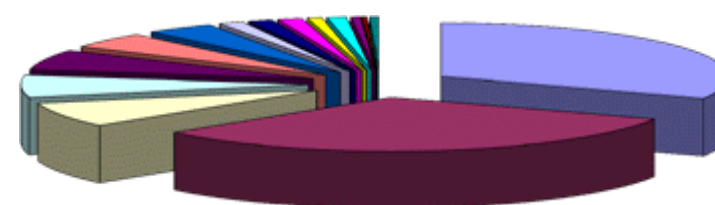
NUMBER OF PATIENTS TAKING A PI 1161

INDINAVIR + RITONAVIR	61.7%
RITONAVIR (children)	18.7%
SAQUINAVIR + RITONAVIR	15.8%

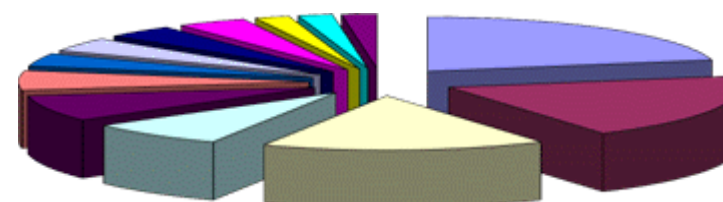
NUMBER OF PATIENTS ALSO REGISTERED ON DUR PROGRAMME 116

NUMBER OF INTERACTING DRUGS 77

NUMBER OF PATIENTS WITH INTERACTIONS 47



Anticonvulsants	31.8%	Amiodarone	1.4%
Calcium Channel Blockers	31.8%	Ergotamine	1.4%
HMGC0A Reductase Inhibitors	7.6%	Azole antimycotics	1.4%
Warfarin	6.6%	Corticosteroids	0.9%
Peptic Ulcer Drugs	6.2%	Glipizide	0.9%
Antihistamines	4.7%	Clarithromycin	0.5%
Propulsives	3.8%	Antidepressants	0.5%
		Vincristine	0.5%



Antidepressants	21.6%	Benzodiazepines	3.9%
Calcium Channel Blockers	19.6%	Beta blockers	3.9%
Anticonvulsants	15.7%	HMGC0A Reductase Inhibitors	3.9%
Antihistamines	7.8%	Warfarin	2.0%
Theophylline	7.8%	Clarithromycin	2.0%
Neuroleptics	5.9%	Omeprazole	2.0%
Azole antimycotics	3.9%		

CONCLUSIONS and RECOMMENDATIONS

- A substantial number of patients were exposed to the risk of significant drug interactions.
- The number is an underestimate as many patients may also be receiving drugs where the potential for drug-drug interactions exist from other sources, which may be over the counter or short term medicines not subject to the DUR program.

- Another potential source of drug interaction is antituberculous medicines, specifically rifampicin. These drugs are supplied by state clinics independent of managed healthcare organisations.
- In Africa HIV is managed by primary care doctors who have limited knowledge of ART and their potential drug interactions.
- Managed healthcare programs must be in a

position to identify potentially serious drug interactions in patients on ART and should advise physicians on how to take appropriate action.

- Record keeping systems designed to maintain confidentiality have the potential to harm patients.

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