

Research Article



Self-Medication in Patients Living with HIV/AIDS: Little Measured Reality

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ABSTRACT

The practice of self-medication can be defined by the use of drugs without prescription from a qualified professional. Patients living with HIV/Aids are generally polypharmacy. The purpose of this research was performing a revision about the practice of self-medication by patients living with HIV/Aids and discussing possible implications on health conditions of these patients. PubMed database was searched for articles that reported the practice of self-medication by patients living with HIV/Aids published until April 2013. The database was searched as follows: "self-medication" and "Aids" or "self-medication" and "HIV". In the localized studies was possible verify that this practice is quite common, and between 10 and 100% of respondents refer adopting self-medication. The main medicines used are analgesics and vitamins. Medicines for adverse reactions management from antiretroviral like antidiarrheal are also used. When the aim of self-medication is treat Sexually Transmitted Disease, antibiotics are more used medicines. The practice of self-medication is influenced mainly by old prescriptions, made by pharmacists or by reading package leaflet. The medicines used are generally exempt from prescription and they contribute in until a quarter of total medicines used by these patients. There is no agreement in the literature about the patient profile which perform self-medication. Self-medication is a practice contextualized within the self-care; however, its adoption by special patients like polypharmacy and immunocompromised must be performed under orientation in order to avoid further damage to the patient health, like adverse event and masking opportunistic diseases.

Keywords: HIV, Aids, self-medication, drug utilization review.

INTRODUCTION

The practice of self-medication can be defined by the use of drugs without prescription from a qualified professional.¹ This practice constitutes the self-care jointly with nutrition, hygiene, lifestyle, environmental and social economic factors.²

When the self-medication is used in a responsible way, it can be safe and effective¹; however, an inadequate use can result in undesirable implications like adverse reactions, masking of health problem or even complicate the clinical conditions.³⁻⁵ Therefore, the recommendation is find a skilled professional before any decision to receive orientation about the treatment to be performed.^{5,6}

Many studies have evidenced the use of alternative and complementary therapies for patients living with HIV/Aids⁷⁻⁹; nevertheless, even some authors demonstrated on the polypharmacy of these patients and report the possibility of self-medication,⁸ including the inference of a possible relation with the medication adherence,¹⁰ little has been investigated about self-medication of this population.

Before this, this revision has the aim of evaluate the self-medication of patients living with HIV/Aids and discussing about possible implications of this practice on this patients health.

For this was made a review in PubMed database to search for articles that reported the practice of self-medication by patients living with HIV/Aids.

MATERIALS AND METHODS

Articles were retrieved from Health Virtual Library (*BVS - Biblioteca Virtual em Saúde*) using the following index terms: "self-medication" and "Aids" or "self-medication" and "HIV". Virtual library database included LILACS, MEDLINE, IBECs, Cochrane and SciELO.

The selection criteria included articles: (1) written in English, Portuguese and Spanish; (2) published until April 2013; (3) study involving self-medication by patients living with HIV/Aids.

The exclusion criteria for articles included: (1) were literature reviews or commentaries; (2) were published as meeting abstracts; (3) not presented prevalence of self-medication. References listed in articles that met our inclusion criteria were assessed and, if relevant, were retrieved and reviewed.

The articles were classified according to published year, sample size, study design, study subjects, prevalence, aim and local. These comparisons are summarized in Table 1.

RESULTS AND DISCUSSION

There were 60 publications identified using the search terms and the described database. Of those publications, 53 did not involve articles that describe the prevalence of self-medication by patients living with HIV/Aids. The search resulted in seven published studies from 1994 to 2008. Publication dates were not used to limit the search.



Self-medication in patients living with HIV/AIDS

From the discovery of antiretroviral therapy, most of epidemiological studies were related to the evaluation of effectiveness and safety of these therapies,^{11,12} as well as the way of access^{13,14} and use, specially addressing medication adherence.^{15,16}

In this way, little has been investigated about other medicine use, whether they are prescribed^{8,17} or not

prescribed,^{3,8,17-21} these lasts characterized as self-medication.

A search in the literature about self-medication in patients living with HIV/Aids was performed and found seven studies published from the year 1994.^{3,8,17-21} We highlight that all the studies had as a primary aim the evaluation of self-medication,^{3,8,17,19,21} according to described on the Table 1.

Table 1: Characterization of works performed among HIV/Aids patients

Year Publication	Sample size	Study subjects	Study design	Prevalence	Aim	Local	References
1994	524	Adults	Clinical trial	85%	Prevalence and standard of the concomitant use of medicines among HIV patients.	The United States of America	17
1996	200	Adults	cross-sectional	38%	Evaluating the perception and practices related to the use of antibiotics as prophylaxis way for STD and Aids.	Philippines	19
1996	282	Adults	cross-sectional	65.5%	Evaluating self-treatment and self-prophylaxis related to the behavior to the HIV infection.	Thailand	20
1996	216	Women	Cohort	43.5% (6 months) 14.0% (daily, weekly or monthly)	Determining how injectable medications were used at home, whether there were needles and syringes reuse or sharing and common practices to clean them.	The United States of America	21
1999	7887	People over 15 years	Cohort	53.5%	Comparing socio-demographic factors related to the use of vitamins and non-prescription medicines.	The United States of America	18
2004	104	Adults	cross-sectional	10%	Evaluating the use of medicines between the genders.	Canada	8
2008	215	Adults	cross-sectional	100%	Investigating the use and abuse of medicines in HIV patients and determining adverse effects.	The United States of America	3

According to Ajuoga et al.,³ patients perform self-medication especially by repetition of old prescriptions (37.2%), by influence of pharmacists (22.3%) and by information obtained from reading of package leaflet (22.3%). It is important highlight, as result of this search³ that, generally medicines adopted in self-medication are acquired by the patient in drugstores.

The prevalence of self-medication by patients living with HIV/Aids is variable according to studies^{3,8,17-21} from 10%⁸ to 100%³, generally positioned above 50% of the patients.^{3,17-19} This high prevalence is in part due to the fact of patients participate actively in the selection of their own medicine and identified them as safe and effective.^{3,22} In this way, the prevalence of self-medication by patients living with HIV/Aids seems do not be different from general population.^{23,24}

According to Furler et al.,⁸ over-the-count drugs, in this case obtained for self-medication used by patients living with HIV/Aids can present until 25% from total of medication used by these patients. These authors⁸ also suggest that the quantity of medicine used in self-medication is higher than that reported to the professionals of health who accompanying them.

It was observed by Furler et. al,⁸ that, among more used medicines by patients living with HIV/Aids, there was vitamins, antianemics, analgesics, antidiarrheals agents and mineral supplements. Similar results were obtained by Ajuoga et al.,³ which evaluated the use of over-the-counter medicines and they cited the analgesics and antipyretics among the most common (64.2%), and as less frequent products for cough and decongestants (5.0%), vitamins (5.0%) among other in less proportion. However, in other studies¹⁹⁻²¹ the more used medicines was the antibiotics and it is due to the aim of some studies which were addressed specifically for these medicines to manage Sexually Transmitted Diseases (STD). Vitamins were cited among most studies^{3,8,17,18,21} and also were highlighted in the study performed by Smith et al.,¹⁸ in which 61.8% of respondents referred using this product.

About medicines used in self-medication, we highlight specially the analgesics which offer antipyretic effect because they can difficult the diagnosis of opportunistic diseases. Nonetheless, the prevalence of the use of these types of medicines should be related to the same reasons of use by general population; in other words, to treat the pain²³.

In relation to antidiarrheal use, they can be used to understate adverse reactions caused by antiretroviral therapy, and at the same time, they can mask intestinal infections.²⁵ The diarrhea can be caused by use of antiretroviral,^{26,27} it should be evaluated by the infectious disease specialist and the substitution of antiretroviral therapy should be verified according to the clinical characteristics.²⁷ To reinforce this hypothesis, Ajuoga et al.,³ suggest a relation between the use of these medicines and manage of adverse reactions caused by antiretroviral.

The use of antibiotics in self-medication by HIV/Aids patients is very worrying by several reasons. One of them is because these medicines are used to manage infectious disease and in these patients it represents an important part of the cases, opportunistic disease related to the immunosuppression. Wherefore, besides the infectious disease treatment, other actions should be performed in order to ensure the best management of the patients' health. In this way, even the symptoms and signals from disease have been disappeared, the use of antibiotics by the patient can lead to a delayed diagnosis of opportunistic diseases, as well as the definition of the Aids and possibly the start of antiretroviral therapy.^{5,26}

Besides, when the use of antibiotics is performed to treat STD^{19,20} it should be performed with greater caution. In this situation, in addition to put the patient in the risk of the use of inadequate treatment, it also can increase the risk of transmission of HIV and of STD contagion,^{28,29} even in treatment. The best way to prevent the HIV and STD transmission would be by use of condoms during the sexual intercourse; however, this attitude not always can be ensured by health education.³⁰

Another highlighted point is the inappropriate use of antibiotics to provide selection of resistant strains. Moreover, the antibiotics are not characterized by over-the-counter medicines and, therefore, their use as self-medication should be avoided.^{5,31}

The vitamins which appear in several studies^{3,8,17,18,21} among more used medicines in self-medication should be used by the same reasons in the general population^{32,33}. There are works which present that the use of these products can be related to medicalization of the society and, wherefore, to the irrational use.^{34,35}

An interesting data obtained in the work performed by Fogelman et al.,¹⁷ is about asymptomatic patients. They use significantly more over-the-counter medicines of all the classes cited previously than the patients that have the disease developed. In their study, Smith et al.,¹⁸ present a contradictory result that shows protective factors for self-medication the fact of the patient presenting good health.

These divergences found in these studies^{17,18} can be due to the cultural factors^{24,36,37}; however, these results highlight the need of more researches in this area in order to clarify this practice in that part of the population.

According to the guidelines of World Health Organization³⁸ for rational use, medicines must be effective, trusted, safe, adequate and easy to handle. When the patients living with HIV/Aids predispose themselves to use medicine in self-medication, they do it in an irrational way,³ predisposing themselves to another therapy,⁸ what can provide adverse events like adverse reactions and drug interactions.³

Adverse reactions cited in the Ajuoga et al.,³ studies and possible related to the use of over-the-counter medicines are stomachache, stomach ulcers, somnolence, dizziness, fatigue, anxiety, jitters, nausea and vomit, loss of taste, pressure increase and dry mouth.

Another problem that we must highlight is the possible drug interactions among antiretroviral medicine and other pharmacological classes.³⁹⁻⁴¹ Some of these interactions are frequent and the consequences are moderate or severe, as the interaction between nevirapine and fluconazole, which result in an increase of nevirapine concentration and consequently toxicity. Other important interaction is that between efavirenz and rifampicin, which causes decrease of rifampicin concentration and consequently decrease of the effectiveness in the treatment of tuberculosis (opportunistic disease associated with HIV).⁴⁰

The interactions with steroidal anti-inflammatory are also cited,^{39,40} in this case, antiretroviral increase the concentration of these drugs predisposing the patients to exacerbated reactions, especially Cushing Syndrome. Corticoids are not over-the-counter medicines; furthermore, depending on the health regulations they can be acquired without prescriptions and be adopted in an irrational way in some countries.⁴²

According to data from the World Health Organization an important percent of women use contraceptive medicine as self-medication.⁴³ Even the analyzed studies about self-medication in HIV do not show this type of medicine among them used by women living with HIV/Aids and that it is not a more adequate contraceptive option to the HIV-positive population, the use of contraceptive cannot be discarded. In this case, it is important highlight that the concomitant use of antiretroviral and oral contraceptives decrease the contraceptive effectiveness, what can cause a unplanned pregnancy with risk of vertical transmission of disease.^{14,43}

Medication adherence is measured as the proportion of compliance with medical prescription and, about retroviral, this percent must be equal or superior to 95%.⁴⁴ There are several factors described in the literature that can decrease the pharmacotherapy compliance¹⁰ and other factors and strategies that can increase it.⁴⁵

Among the factors that can decrease this adherence is the self-medication.¹⁰ In this case, lower compliance to antiretroviral occurs when the patient replace Antiretroviral Therapy medicines by other. There are



several reports about antiretroviral therapy replaced by other therapies, especially in Africa, where the access to antiretroviral is smaller. In these places, the substitution generally occurs by alternative or complementary medicine and many times the use of medicinal plants is performed. According to the World Health Organization,⁴ about 80% population in some Asian countries and Africa use alternative medicine to the primary health cares.

Hovstadius e Petterson⁴⁶ considers that the self-medication is linked to patient behaviour that can provide polypharmacy. This Polypharmacy generates complex therapeutic regimens and consequently the decrease of medication adherence. In this context, self-medication can decrease the medication adherence.⁴⁶

On the other hand, when the practice of self-medication does not replace antiretroviral medicines and does not interfere significantly in the complexity of the treatments, it is possible that this practice does not mean important influence in the medication adherence. We also can suppose that when the self-medication is performed within the concept of self-care, it means that the patient has more comprehension about his or her health and he or she performs, besides the self-medication, other kinds of health care,² and it is possible that the practice of self-medication can be associated to increase of medication adherence. Corroborating this information, Johnson et al.,¹⁶ describe the management of adverse reactions to antiretroviral by the own patient decrease the quantity of patients not adherence.

Is it possible avoiding self-medication by patients living with HIV/Aids? Maybe it does not, but it can occur in an oriented way.^{5,22} In this case, physicians which accompanying patients living with HIV/Aids, especially the infectious disease specialist should guide the patient to the use of medicine whether necessary and also to lead the observation of warning signs; in other words, signs or symptoms that can guide the patient to find more complex healthcare.

CONCLUSION

The self-medication by patients living with HIV/Aids seems to be frequent and it is especially related to the use of over-the-count medicine and symptoms management like pain and fever and to the control of adverse reactions related to the antiretroviral therapy.

Although the self-medication can be part of self-care, it is important measure this practice, once it can be performed in an irrational way. However, the lack of studies about this theme deserve to be observed in order to be developed works that allow the knowledge of motivations and consequences of this practice of care about the patients' health.

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