



Assessment of Drug History Information in Referral Letters to the Antiretroviral Therapy Outpatient Specialist Clinic of a Federal Teaching Hospital in Ilorin

Évaluation des Informations sur les Antécédents Médicamenteux dans les Lettres d'Orientation Adressées à la Clinique Spécialisée dans la Thérapie Antirétrovirale d'un Hôpital Universitaire Fédéral d'Ilorin

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ABSTRACT

BACKGROUND: The drug use history of a patient is an essential component of a referral letter to a specialist clinic. It guides and enables appropriate patient management while improving the quality of care rendered. There is insufficient data regarding the quality of drug history information in referral letters in this setting.

OBJECTIVE: To assess the adequacy of the information on drug history in referral letters received at the antiretroviral therapy (ART) specialist outpatient clinic at the University of Ilorin Teaching Hospital, Ilorin

METHODS: In a retrospective study conducted between January and June 2022, all referral letters received at the ART clinic on clinic days were reviewed for drug history information provided using a data capture form.

RESULTS: A total of 142 referrals were reviewed and analyzed. The majority (99.3%) of the referral provided information on patients' socio-demographic characteristics. Most of the referrals (47.2%) were from Family medicine department of the hospital and information on drug history was only provided in 43.0% of the referral letters.

CONCLUSION: This study concluded that drug history information was infrequently and incompletely documented in referral letters to an ART outpatient clinic. The use of a structured referral form may be useful and may help to improve the documentation of information on drug history by the referring doctor. **WAJM 2023; 40(4): 362–366.**

Keywords: Drug, Information, Antiretroviral, Nigeria.

RÉSUMÉ

CONTEXTE: L'historique de la consommation de médicaments d'un patient est un élément essentiel d'une lettre d'orientation vers une clinique spécialisée. Il guide et permet une prise en charge appropriée du patient tout en améliorant la qualité des soins prodigués. On ne dispose pas de données suffisantes sur la qualité des informations relatives aux antécédents médicamenteux figurant dans les lettres d'orientation dans ce contexte.

OBJECTIF: Évaluer l'adéquation des informations sur les antécédents médicamenteux dans les lettres d'orientation reçues par la clinique externe spécialisée dans la thérapie antirétrovirale (ART) de l'hôpital universitaire de l'Université d'Ilorin, Ilorin.

MÉTHODES: Dans le cadre d'une étude rétrospective menée entre janvier et juin 2022, toutes les lettres d'orientation reçues à la clinique ART les jours de clinique ont été examinées pour vérifier les informations sur les antécédents médicamenteux fournies à l'aide d'un formulaire de saisie de données.

RÉSULTATS: Au total, 142 références ont été examinées et analysées. La majorité (99,3 %) des lettres de recommandation contenaient des informations sur les caractéristiques sociodémographiques des patients. La plupart des références (47,2 %) provenaient du service de médecine familiale de l'hôpital et les informations sur les antécédents médicamenteux n'ont été fournies que dans 43,0 % des lettres de référence.

CONCLUSION: Cette étude a conclu que les informations sur les antécédents médicamenteux étaient rarement et incomplètement documentées dans les lettres de recommandation adressées à un centre de soins ambulatoires pour le traitement antirétroviral. L'utilisation d'un formulaire de référence structuré peut être utile et peut aider à améliorer la documentation des informations sur les antécédents médicamenteux par le médecin référent. **WAJM 2023; 40(4): 362–366.**

Mots clés: Médicament, Information, Antirétroviral, Nigeria.

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Abbreviations: AL, Artemether-Lumefantrine; ART, Antiretroviral Therapy; AZT/3TC/NVP, Zidovudine, Lamivudine, Nevirapine; DHA/PPQ, Dihydroartemisinin-Piperaquine; ENT, Ear, Nose and Throat; HIV, Human Immunodeficiency Virus; SPSS, Statistical Package for Social Sciences; TLD, Tenofovir, Lamivudine, Dolutegravir; UITH, University of Ilorin Teaching Hospital; WHO, World Health Organization.

INTRODUCTION

Referral letters are communication channels between healthcare professionals and a means of transferring the care of a patient from one health facility or worker to another; usually from a lower level of care to a higher one for the continuation of care and expert services.^{1,2}

Good referral systems lead to efficient communication between all levels of patient management. The referral process is commonly initiated by communication in the form of a referral letter, written by the referring doctor or healthcare worker, as the case may be. The reasons for referral are usually due to insufficient resources like drugs, skills, or equipment needed to adequately manage a particular disease and an ideal referral letter provides information on patient's socio-demographic characteristics, clinical history, and drug use history.³ A well-written referral letter no doubt benefits the patient by reducing delays in accessing clinical care.^{4,5}

A drug history is an accurate and comprehensive account of all the drugs (prescribed and non-prescribed drugs) previously or currently taken by a patient prior to their referral to a higher level of care.⁶ The quality of drug history and the clinical information provided in the referral letter guides the specialist in making an informed decision during consultation. This is also of importance in the management of the patient as it helps in effective and efficient triage of patients which facilitates invaluable patient-specialist interaction. The ability to effectively and efficiently formulate an appropriate management plan for a patient at the time of specialist consultation depends on the quality of drug history and clinical details provided in the referral letter. A good referral has been found to be cost effective for the patients and the healthcare system at large.^{7,8}

Previous reports on poor communication, deficient clinical information and inadequate drug history in referral letters exist in literature.^{6,9} In few reports where the drug history was reported, they were inaccurately and incompletely documented.⁹ Lack of drug history in referral letters particularly on

patient's current drug use, drug allergies, adverse drug reaction and drug adherence usually hinder prompt review and management at the time of consultation.^{9,10} The absence of drug history may increase morbidity through the increased risk of developing drug-drug interactions and adverse drug reactions. These on the long run may affect patient's compliance, development of drug resistance, treatment failure and increase mortality.

The important role of proper documentation of the drug history in the referral letter in the management of patients, thus, cannot be over-emphasized. It is therefore imperative to establish a good communication channel among the managing doctors (both the one that is referring the patient and the one that is receiving the patient). This can be achieved by assessing the magnitude of the deficiencies in the content of the referral letters and proffering solutions based on the observations. We therefore, assessed the drug history information, the source and adequacy of the socio-demographic information reported in referral letters to the ART specialist outpatient clinic of the University of Ilorin Teaching Hospital (UITH) with the view to providing information on the current practice, identifying the deficiencies, and giving constructive feedback. The findings can be used to design appropriate interventions that will enhance the quality referral letters which will aid timely patient management.

SUBJECT, MATERIALS AND METHODS

This was a descriptive study that evaluated the drug history information provided in all referral letters presented at the antiretroviral therapy outpatient specialist clinic of University of Ilorin Teaching Hospital between January and June 2022. Data considered essential for quality review and effective management of patients such as the source of the referral letters and socio-demographic information were also reviewed. Data capture form was used to obtain needed information. It was designed by the researchers using the information provided by World Health Organization (WHO) as essential for referring patients

to a treatment facility.¹¹ Ethical approval was obtained from Ethics and Research Committee of UITH with approval number: ERC PAN/2022/07/0309

Descriptive and frequency statistics were obtained for the variables studied. Data analysis was carried out using the Statistical Package for Social Sciences (SPSS), version 22.0 (IBM., Chicago, IL, USA) and categorical variables were expressed as percentages.

RESULTS

A total of 142 referral letters were reviewed and analyzed in this study. They were written by doctors from various clinics within and outside University of Ilorin Teaching Hospital (UITH). Referral from within UITH constituted the majority (84.5 %) of the referral letters. Most of the referral letters were from clinics run by Family Medicine Department (47.2%), other clinics in Medical Outpatient Department (14.8%) and other specialty clinics (9.9%) in UITH (Table 1).

The most frequently documented socio-demographic information in the referral letter were patient's name (99.3%), patient's age (96.5%), patient's gender (96.5%), source of referral (96.5%), the date referral letter was written (94.4) and the hospital number (91.5%). (Table 2).

Of the 142 referral letters reviewed, only 61 (43.0%) documented information on the drug history of the patient. The classes of drugs given to the patients at the referring centers are presented in Table 3 below. Antibacterial drugs (88.5%) were the most frequently prescribed class of drug, followed by antimalarial drugs (82.0%), and Iron/multivitamin supplements (78.7%). Metronidazole (33.3%) was the most prescribed among the antibacterial agent, whereas artemether-lumefantrine was the most prescribed antimalarial drug. Two of the patients had been commenced on antiretroviral drugs before being referred. The average number of drugs in the referral letter was 3 (ranges between 1 and 5), and some patients were on two or more drugs from the same class. It is however important to note that of the referral letters that documented the drug history, most (97.3%) of them did not state the dose, frequency, and duration of treatment.

Table 1: Sources of Referral Letters presented to the Antiretroviral Therapy Outpatient Specialist Clinic in University of Ilorin Teaching Hospital

Source of Referral	Frequency (N=142)	Percentage (%)
Family Medicine Department, UITH	67	47.2
Other Medical Outpatient Specialist Clinics, UITH	21	14.8
Other Specialty Clinics, UITH (Eye, Dental and ENT)	14	9.9
Various Private Hospitals	12	8.5
Accident and Emergency Department, UITH	9	6.3
Surgical Outpatient Department, UITH	5	3.5
Source of referral not stated	5	3.5
Obstetrics and Gynecology Department, UITH	4	2.8
General Hospital, Ilorin	3	2.1
Sobi Specialist Hospital, Ilorin	2	1.4

ENT, Ear, Nose and Throat.

Table 2: Socio-demographic information in the referral letters to the Antiretroviral Therapy Outpatient Specialist Clinic in University of Ilorin Teaching Hospital

Variables Stated	Yes (N)	Percentage (%)
Patient's name	141	99.3
Patient's age	137	96.5
Patient's gender	137	96.5
Date of referral	134	94.4
Hospital number	130	91.5
Address of patient	114	80.3
Patient's occupation	90	64.3
Patient's weight	80	56.3
Patient's marital status	80	56.3

DISCUSSION

Patients are referred on a regular basis for specialist care, evaluation and management in healthcare system. An ideal referral letter is expected to contain information on drug history and all the relevant information needed to ensure effective communication, to avoid unnecessary repetition of investigations and drug-drug interaction.^{9,12,13} The adequacy of information in the referral letter has been shown to either delay or expedite patient evaluation and treatment.^{14,15} Adequate information reduces waiting time on the part of patient and ensure prompt treatment. This study revealed that the highest number of referral letters to the ART specialist clinic came from Family Medicine department similar to the findings from the study on patients with hematological disorders by Onaja *et al.*¹⁶ However, in the study by Aworanti *et al.*¹⁷

on patients with hematological disorders, most of the referral letters they received came from the Obstetrics and Gynecology department, while in the study by Esan *et al.*¹³ most of the referral letters for patients with psychiatric disorders came from the General Outpatient Department. The least number of referral letters were from a private facility, Sobi specialist hospital, Ilorin (1.4%), and this was probably due to the fact that Sobi specialist hospital has facilities for HIV management. Aworanti *et al.*¹⁷ and Onaja *et al.*¹⁶ found that the least number of referrals were from the radiation oncology department and ENT department respectively though they studied patients with hematological disorders.

It was observed in this study that referral letters to the antiretroviral therapy outpatient specialist clinic often did not contain the information

considered to be important for quality consultation, effective patient triage and prompt treatment which was similar to findings by Adeleye *et al.*¹⁸ on patients with diabetes mellitus. A remarkable proportion of the referral letters did not contain the marital status, name of the patient and/or signature of the writer. These findings may necessitate cross-checking of the referral letters for writers' names and signatures by a senior colleague which will help to reduce these inadequacies in the referral letters. Most of the referral letters provided information on patients' biodata such as patient's name, age, and gender. This was similar to reports by Onoja *et al.*¹⁶ and Osinaike *et al.*¹⁹

Pharmacotherapy constitutes over 90% of treatment modality in HIV/AIDS care.²⁰ Medication history is an important part of patients' evaluation and management. More than 50% of the reviewed referral letters did not contain information on the drug history of the patient. This finding is similar to reports in literature from previous studies.^{13,21,22} Inadequate drug history could lead to development of drug-drug interaction, adverse drug reactions, poor drug compliance, drug resistance and treatment/therapeutic failure which increases the burden of the disease. Abuyassin *et al.*²² and Assefa *et al.*²³ in their study also reported poor documentation of drug history. The absence of drug history in referral letters suggests that the information was either not obtained from the patient or was considered unnecessary to be written in the referral. This observation underscores the need for training of doctors on how to write a standard referral letter or its inclusion in the medical curriculum of medical students particularly now when the World Health Organization (WHO) is scaling up the fight against medication errors.²⁴ The deficiencies in information on drug history in referral letters increase the cost of care for the healthcare system and the patient in terms of duplication of drugs, polypharmacy, development of adverse drug reactions and treatment failure.

Some studies evaluating the adequacy of information on drug history in referral letters also revealed that they were grossly inadequate.^{17,25,26} A number

Table 3: Drugs documented in Referral Letters of Patients Referred to the Antiretroviral Therapy Outpatient Specialist Clinic in University of Ilorin Teaching Hospital

Class of Drug documented	Frequency (n=61)	Percentage
Antibiotics (n=54)		88.5
Metronidazole	18	33.3
Ampicillin-cloxacillin	14	25.9
Cotrimoxazole	13	24.1
Amoxicillin	10	18.5
Erythromycin	6	11.1
Amoxicillin-clavulanic acid	4	7.4
Ceftriaxone	2	3.7
Gentamicin	2	3.7
Cefuroxime	1	1.9
Others	2	3.7
Analgesics (n=42)		68.9
Paracetamol	25	59.5
Ibuprofen	16	38.1
Morphine	2	4.8
Others	4	9.5
Antimalarial Drugs (n=50)		82.0
Artemether-lumefantrine	31	62.0
Dihydroartemisinin-piperaquine	12	24.0
Others	7	14.0
Iron/Multivitamins (n=48)		78.7
Vitamin B complex	27	56.3
Iron supplements	22	45.8
Calcium supplement	8	16.7
Other	2	4.2
Antiretroviral Drugs (n=2)		3.3
TLD	1	50.0
AZT/3TC/NVP	1	50.0
Diuretics (n=3)		4.9
Furosemide	3	100.0
Anticonvulsants (n=1)		1.6
Carbamazepine	1	100.0

Some referral letters documented more than one drug in the same class for the same patient. **TLD**, Tenofovir, Lamivudine, Dolutegravir. **AZT/3TC/NVP**, Zidovudine, Lamivudine, Nevirapine.

of reasons have been put forward for these inadequacies and one of such was inadequate knowledge of the acceptable standard of care of HIV patients.²⁷ A number of approaches have been suggested in a bid to improve the quality of information in referral letters to specialist clinics. These include the use of structured or standardized form as referrals.^{24,28,29} This form will contain highlights of relevant information designed in a format to improve the documentation of the information in a systematic manner.

This study is limited by the fact that it was conducted in one federal tertiary hospital in the country and these

findings may not represent what is happening in other federal and state teaching hospitals in the country and therefore limits the generalization of the findings to other centers.

CONCLUSION

This study concluded that drug history information was infrequently and incompletely documented in referral letters to ART outpatient clinic. The use of a structured referral form may be useful and may help to improve the documentation of information on drug history by referring doctors as this will remind them of the needed information in a good referral letter.

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Duality of Interest

None declared.

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