

# AN ASSESSMENT OF REFERRAL LETTERS TO A SPECIALIST DIABETES OUTPATIENT SERVICE IN IBADAN

<sup>1</sup>Adeleye JO, <sup>2</sup>Esan A, <sup>2</sup>Akande TO, <sup>1</sup>Balogun WO

<sup>1</sup>Department of Medicine, College of Medicine, University of Ibadan/ University College Hospital, Ibadan, Nigeria.

<sup>2</sup>Department of Medicine, University College Hospital, Ibadan, Nigeria.

## ABSTRACT

**BACKGROUND:** Diabetes is a complex, chronic illness which requires continuous medical care. Requests for specialist consultation is a regular occurrence, and the referral process is most commonly initiated by a referral letter. The ability to effectively formulate an appropriate management plan for a patient at the time of specialist consultation largely depends on the quality of clinical information provided in the referral letter.

**AIM:** The aim of the study was to assess the information provided in referral letters to the specialist diabetes clinic in a tertiary hospital in Nigeria.

**METHODS:** This was a cross-sectional study conducted between August and December 2017. All referral letters presented to the diabetes clinic on selected clinic days were evaluated using a data extraction tool designed by the investigators.

**RESULTS:** The majority of referral letters provided information on patient identifiers. However, the provision of clinical information deemed vital for effective patient triage and good quality review in the specialist diabetes clinic was generally unsatisfactory. Less than a quarter of the referral letters provided information on key parameters such as physical examination findings, patients medication and glycated hemoglobin (HbA1c) level. Short term measures of glycemic control, blood pressure status, serum creatinine and serum lipid profiles were reported in just 51.3%, 35%, 6.7% and 2.5% of referral letters respectively.

**CONCLUSION:** We have observed that referral letters to our specialist diabetes clinic often do not contain adequate information considered essential for a good quality consultation. Identifying the root causes of the inadequacies observed and the institution of intervention measures to address the problems identified could help improve the delivery of specialist review services for patients with diabetes. Interventions such as the use of standardized formats for referral letters, provision of referral guidelines and physician education programmes might help improve the quality of information provided at the time of referral.

**KEY WORDS:** Assessment, Referral Letters, Diabetes, Specialist

NigerJmed2018: 362-367

© 2018. Nigerian Journal of Medicine

## INTRODUCTION

Diabetes mellitus is a pandemic and a disease of public health significance worldwide.<sup>1</sup> It is associated with long-term damage, dysfunction, and failure of various organs, especially the eyes, kidneys, nerves, heart, and blood vessels.<sup>2</sup> Approximately 1.7 million adult Nigerians are estimated to have diabetes mellitus as at 2017, while approximately 7.7 million are estimated to have impaired glucose tolerance.<sup>1</sup> The burden of diabetes and its related complications in the African region is expected to increase even further, as it is estimated that by 2045, the number of adults living with diabetes in sub-Saharan Africa will more than double the number in 2017.<sup>1</sup>

Diabetes is a complex, chronic illness which requires continuous medical care.<sup>3</sup>

Requests for specialist endocrine consultation is a regular occurrence, and the referral process is most commonly initiated by communication in the form of a referral letter written by the referring physician.<sup>4-6</sup> The quality of clinical information provided in the referral letter guides the Endocrinologist in decision making prior to and during the consultation.<sup>6-7</sup> A good quality referral letter is crucial in organizing appropriate, effective and efficient triage of the patients referred to a specialist service<sup>6</sup> and this facilitates valuable patient-specialist interaction and management.<sup>7</sup> The ability to effectively and efficiently formulate an appropriate management plan for a patient at the time of a specialist consultation largely depends on the quality of clinical information provided as well as the availability of diagnostic information, especially laboratory results at the time of the consultation.<sup>7,8</sup> Referrals which provide information the

**Correspondence to:** J.O Adeleye  
Department of Medicine, College of  
Medicine/University College Hospital,  
P.M.B 5116, Ibadan, Nigeria.  
E-mail: jokotadea@hotmail.com

specialist deems necessary for a good quality consultation enables optimal use of the specialist's time and expertise and will likely be more cost effective for patients. This is even more pertinent in practice environs like ours, where specialist services for persons with diabetes are scarce and the vast majority of patients pay for services out of pocket.

This study sought to assess the information provided in referral letters to the specialist diabetes clinic in our hospital. The outcome of the study may provide a means for constructive feedback to doctors at all levels and the design of appropriate interventions if deemed necessary.

## METHODS

This was a cross-sectional study of referral letters presented on selected clinic days at the diabetes outpatient clinic in the Medical outpatients' department (MOPD), University College Hospital, Ibadan between August and December 2017. Each referral letter was evaluated for information we considered essential for efficient

patient triage, good quality review, and the construction of an effective and safe management plan for the patient using a data extraction tool. Categorical variables were expressed as percentages. Significance testing was done with Chi-square test for categorical variables. Data analysis was carried out using the Statistical Package for Social Science (IBM SPSS) software, version 22 (IBM Corp Armonk, NY).

## RESULTS

120 referral letters were reviewed in the study. They were written by doctors from various clinics/hospitals. Referrals from within the University College Hospital, Ibadan constituted the vast majority, accounting for approximately 84.2% of the referrals. The top 3 sources of referral to the diabetes clinic were from the Ophthalmology clinic (23.3%), other clinics in the MOPD (16.7%) and clinics run by the Family Medicine department (15.8%). The sources of the referral letters are presented in Table 1.

**Table 1: Source of Referral Letters presented to the Diabetes Clinic**

Source of Referral	Frequency	Percent (%)
Ophthalmology Clinic, UCH	28	23.3
Other Medical Out Patient Specialist Clinics in UCH	20	16.7
Family Medicine Department, UCH	19	15.8
Various Private Hospitals	10	8.3
Staff Medical Services Department, UCH	9	7.5
Obstetrics & Gynaecology Clinics UCH	9	7.5
Surgical Out Patient department, UCH	6	5.0
CTAGC, UCH	5	4.2
Haematology Clinic, UCH	2	1.7
Other Specialty Clinics in UCH (Dental & ENT)	2	1.7
Accident & Emergency Department UCH	1	0.8
Others (Ring Road State Hospital & DSS Clinic)	2	1.7
Source of referral not stated	7	5.8
<b>Total</b>	<b>120</b>	<b>100</b>

CTAGC - Chief Tony Anenih Geriatric Centre ENT - Ear, Nose and Throat  
DSS - Department of State Security Services

The most frequently mentioned items in the referral letters were the patient's name (99.2%), the source from which the referrals originated (93.3%), date referral letter was written (92.5%), patient's gender (80%) and the patient's age (74.2%). (Table 2).

**Table 2: Patient identifier information in referral letters to the Diabetes clinic**

Variables stated	Yes (N)	Percentage (%)
Date of referral	111	92.5
Source of referral	112	93.3
Patient's name	119	99.2
Hospital number	79	65.8
Patients age	89	74.2
Patients gender	96	80.0

The frequency of information provided about clinical parameters we considered essential for effective triage and review at the time of referral to the diabetes clinic are shown in Table 3.

**Table 3: Information on clinical parameters in referral letters to the Diabetes clinic**

Variables stated	Yes (N)	Percentage (%)
Type of diabetes	21	17.8
Diabetes duration	31	26.3
Blood Pressure status	42	35
Physical Examination findings	22	18.3
HbA1c result	26	21.7
*Blood glucose concentration	61	51.3
Lipid profile	3	2.5
Serum Creatinine	8	6.7
Information on Medication	37	30.8
Other Management modality instituted	5	4.2
Name of referring Doctor	85	71.4
Signature of Doctor	92	77.3

\* Fasting blood glucose or Random blood glucose or 2-hour post prandial glucose  
HbA1c - Glycated Hemoglobin

We observed a notable difference in the frequency of information provided on patient identifiers, when compared with information provided on clinical parameters. The provision of clinical information deemed vital for effective patient triage and good quality review in the specialist diabetes clinic was generally unsatisfactory (Table 3). Glycated hemoglobin (HbA1c), the standard biomarker for monitoring long term glycemic control reflects average glycemia over approximately 3 months and has strong predictive value for diabetes complications. The HbA1c was stated in only 21.7% of referral letters. Blood glucose levels at the time of referral were provided in just about half (51.3%) of the referral letters, while results of parameters of renal function and lipid profile were not provided in the vast majority of referral letters. Information on medication at the time of referral was provided in only a third (30.8%) of the referral letters.

In about one-third (28.6%) of the referral letters, the referring doctor did not state his/her name, while approximately 23.8% of referral letters supposedly written on behalf of a consultant, did not include the name of the consultant on whose behalf, the referral had been written. Finally, it was interesting to note that none of the referrals requested that the patients be returned to their care after the review in the specialist clinic.

## DISCUSSION

Referral of patients to specialist clinics is a daily activity in any healthcare system. Dissatisfaction with the quality of information provided in referral letters has often been reported in various specialties.<sup>5-7,9-11</sup> In this study, we observed that referral letters to our specialist diabetes clinic often did not contain the information we consider essential for a good quality consultation. Although most letters provided basic information such as patients name and age, they were deficient in information on examination findings, medication history (including dosage), as well as information on basic laboratory tests expected to have been carried out before referral (see Table 2). In our practice environs, information on medication history can be difficult to obtain directly from patients as many of them do not know the names of their medications or dosage used. The absence of such information in the referral letters suggests the information was never obtained or perhaps considered unnecessary to share.

The quality of the content of the referral letter is considered vital to the success of the outpatient referral.<sup>7,9</sup> It impacts on the process of patient assessment, management and clinical outcomes, and also has a bearing on the cost of care. If a referral does not contain sufficient information, it hampers the ability to provide adequate patient

triage, care and optimal use of the limited time available for specialist services, with potential adverse consequences.<sup>7,9,10</sup> These include delays in review and comprehensive management, duplication of testing, polypharmacy, repeat visits for the patient that could have been avoided, increased expenses and decreased quality of care.<sup>12</sup>

Although this study did not evaluate specific reasons for referral to the diabetes clinic, we also observed that referral letters to the clinic frequently failed to demonstrate clarity on the specific reason for referral or a statement of what was required from the referral. Reasons that have been adduced for the inadequate quality of information contained in referral letters include deficiencies in knowledge regarding acceptable standards of care, time constraints due to overpopulated and understaffed clinics and the lack of secretarial support.<sup>6,9</sup>

Efforts to improve the delivery of information to specialists could help optimize the delivery of specialist services.<sup>13</sup> 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 "form" (structured or standardized) letters for referrals.<sup>6,14,15</sup> These contain headings for relevant information, designed to facilitate the documentation of referral information in a systematic manner. The headings serve as guides or reminders of essential information to be included and may help improve the provision of information considered essential.<sup>16</sup> The use of such structured referral templates has been reported to result in referrals containing more information than unstructured letters of equivalent length.<sup>15</sup> Improvement in the quality of referral letters after the introduction of a form (structured) letter has been reported.<sup>17</sup>

One would also expect that the creation, dissemination and use of guidelines could help enhance the quality of information provided during the referral process. However, conflicting evidence exists, as Hendricks et al, reported that the creation and dissemination of a referral guideline containing essential elements to facilitate the acquisition of information from incoming referrals did not improve referral completeness.<sup>7</sup> In another study, the issuance of

local guidelines on the management of diabetes to General practitioners (GPs) appeared to have very little effect on increasing the information provided in referral letters on relevant medical problems and did not appear to have influenced screening for complications in patients with Type 2 diabetes by GPs before specialist referral.<sup>18</sup> The introduction of physician education programs have been reported to significantly improve the quality of diabetes care.<sup>19</sup> The provision of training and regular interaction with specialists may be another effective means of intervention, going beyond the mere provision and dissemination of guidelines and some positive outcomes on the referral process have been identified.<sup>20</sup> Interventions to facilitate communication between primary care doctors and specialists is also another strategy that has been utilized in a bid to improve the quality of referrals. It appears that feedback by the specialist to the referring physician could also be helpful in improving the referral process.<sup>9,12,21,22</sup> Feedback response by the specialists to the referring physician may also assist and encourage the referring doctor to improve on the content of subsequent referral letters. Finally, the inclusion of letter writing and other communication skills in the curriculum of medical students and doctors in residency training has also been suggested as a strategy to improve on the quality of referral letters.<sup>14,23</sup>

Approximately one quarter (27.5%) of the referral letters we analysed originated from Family physician led clinics, with a little over half (55.9%) of all the referral letters evaluated in this study, originating from other specialist clinics, with referrals from Ophthalmology clinic being the most frequent (see Table 1). Patients had presented to these specialty clinics on account of other co-morbidities and were then consequently referred to the diabetes clinic because of a prior diagnosis of diabetes mellitus. These patients often attested to having either no or inconsistent follow up care for diabetes. In the United Kingdom, over the last couple of decades, due to the ever-increasing burden of type 2 diabetes, the focus of care for people with diabetes has shifted from hospital to general practice (community-based care).<sup>24</sup> Shared care is the joint participation of hospital consultants and general practitioners in a planned delivery of care for patients with a chronic condition, informed by an enhanced

information exchange. As earlier stated, none of the referrals requested that the patients be returned to their care after our review. Consequently, it remains to be ascertained if the doctors referring these patients are eager to continue the care of persons with diabetes, if and when referred back to them. The design and implementation of a system that facilitates access to the highest quality of diabetes education and care relevant to local needs and resources at primary and secondary health care levels in both urban and rural areas is urgently required in Nigeria. This may have a positive impact on referral process and improve the quality of diabetes care in Nigeria.

Limitations of our study include only examining data from a single tertiary teaching hospital, which may limit generalization of the results to other teaching hospitals/specialist services. We also did not evaluate the reasons/appropriateness of the referrals to the specialist diabetes clinic.

## CONCLUSION

In conclusion, we have observed that referral letters to our specialist diabetes clinic often do not contain adequate information considered essential for a good quality consultation. Identifying the root causes of the inadequacies observed and the institution of measures to address the problems identified could improve the delivery of specialist review services for patients with diabetes mellitus.

## REFERENCES

1. International Diabetes Federation. IDF Diabetes Atlas, 8th ed. Brussels, Belgium: International Diabetes Federation, 2017. <http://www.diabetesatlas.org>
2. American Diabetes Association (ADA). Report of the Expert Committee on the Diagnosis and Classification of Diabetes Mellitus. *Diabetes Care* 2003; 26: Suppl 1: S5-S12.
3. American Diabetes Association. Standards of medical care in diabetes – 2018. *Diabetes Care* 2018;41 Suppl 1: S1-S159.
4. Francois J. Tool to assess the quality of consultation and referral request in Family medicine. *Canadian Family Physician* 2011; 57: 547-575.
5. Westerman RF, Hull FM, Bezemer PD, Gort G. A study of communication between general practitioners and specialists. *Br J Gen Pract* 1990; 40: 445-449.
6. Syed AA, Large DM. Quality of GPs' referral letters to diabetes secondary care. *Pract Diab Int* 2003; 20: 163-169.
7. Hendrickson JD, Saini S, Pothuloori MD, Meccchella JN. Assessing referrals and improving information availability for consultations in an academic endocrinology clinic. *Endocrine Pract* 2017; 23: 190-198.
8. Wanis K, Oucharek J, Groot G. Quality of thyroid referrals in Saskatchewan. *Quality in Primary Care*. 2013; 21: 247-52.
9. Gandhi TK, Sittig DF, Franklin M, Sussman AJ, Fairchild DG, Bates DW. Communication breakdown in the outpatient referral process. *J Gen Intern Med*. 2000; 15: 626-31.
10. Jenkins RM. Quality of general practitioner referrals to outpatient departments: assessment by specialists and a general practitioner. *British Journal of General Practice*, 1993, 43, 111-113.
11. Esan O, Oladele O. Referral letters to the psychiatrist in Nigeria: is communication adequate? *Afr Health Sci*, 2016; 16: 1023-1026.
12. Epstein RM. Communication between primary care physicians and consultants. *Arch Fam Med*. 1995; 4: 403-9.
13. Graham PH. Improving communication with specialists. The case of an oncology clinic. *Med J Aust*. 1994; 160: 625-7.
14. Ramanayake R. Structured printed referral letter (form letter): saves time and improves communication. *J Family Med Prim Care* 2013; 2: 145-148.
15. Jenkins S, Arrol B, Hawken S, Nicholson R. Referral letters: are form letters better? *British Journal of General Practice* 1997; 47: 107-108.
16. Van den Berg AD. The referral letter. *SA Family Practice* 1985: 356-358.
17. Couper ID, Henbest RJ. The quality and relationship of referral and reply letters. The effect of introducing a pro forma letter. *SAfr Med J* 1996; 86: 1540-2.
18. Idiculla JM, Perros P, Frier BM. Do diabetes guidelines influence the content of referral letters by general practitioners to a diabetes specialist clinic? *Health Bull (Edinb)*. 2000; 58: 322-7.
19. Van Zyl D, Rheeder P. Physician education programme improves quality of diabetes care. *S Afr Med J* 2004; 94: 455-9.
20. Blank L. Referral interventions from primary to specialist care: a systematic review of international evidence. *Br J Gen Pract*. 2014; 64: e765-e774. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4240149>. (Last accessed on 15th March 2018). doi: 10.3399/bjgp14X682837.

21. Westerman RF1, Hull FM, Bezemer PD, Gort G. A study of communication between general practitioners and specialists. *Br J Gen Pract.* 1990;40:445-9.
22. McPhee SJ, Lo B, Saika GY, Meltzer R. How good is communication between primary care physicians and subspecialty consultants? *Arch Intern Med.* 1984;144:1265-8.
23. Nestel D, Kidd J. Teaching and learning about written communications in a United Kingdom medical school. *Educ Health.* 2004;17:27-34
24. Pierce M, Agarwal G, Ridout D. A survey of diabetes care in general practice in England and Wales. *Br J Gen Pract.* 2000;50:542-5.