



ST. PAUL HOSPITAL MILLENNIUM MEDICAL COLLEGE
GRADUATE STUDY PROGRAM

ASSESSMENT OF COMPLETENESS OF REFERRAL PAPERS AMONG
REFERRED PATIENTS TO SPHMMC

BY; ABABA TAFASA (MD, PAEDIATRIC RESIDENT)

ADDIS ABABA, ETHIOPIA

NOV 23, 2022(GC)



ST. PAUL HOSPITAL MILLENNIUM MEDICAL COLLEGE
GRADUATE STUDY PROGRAM

ASSESSMENT OF COMPLETENESS OF REFERRAL PAPERS AMONG
REFERRED PATIENTS TO SPHMMC

BY; ABEBE TAFESE (MD, PEDIATRIC RESIDENT)

CLINICAL ADVISER; GESIT METAFERIA, (MD, NEONATOLOGIST)

A THESIS FINAL TO BE SUBMITTED TO DEPARTMENT OF
PEDIATRICS AND CHILD HEALTH, SAINT PAUL'S HOSPITAL
MILLENNIUM MEDICAL COLLEGE FOR THE PARTIAL FULFILMENT
OF THE REQUIREMENTS FOR THE CERTIFICATE IN PEDIATRICS AND
CHILD HEALTH

ADDIS ABABA, ETHIOPIA

NOV 23, 2022(GC)

Acknowledgement

Thank you God for all your blessing to me and my family, for the strength you give me each day and for all the people around me who make life more meaningful. Without you it was not easy!!

I would like to express my deeply felt gratitude to my advisor Dr. Gesit Metaferia (MD, Neonatologist) for his encouragement, guidance and kind correspondence during the development of the research.

Last but not least I would like to extend my appreciation to my wife Muluwerk Wonde, for her support and encouragement in all difficulties.

Abstract

INTRODUCTION: The referral system constitutes a key element of health system. Effective referral system between different levels of health care delivery represents a cornerstone in addressing patients health needs. Referral papers of high quality are an essential part of good clinical care and act as the interface between health care professionals in primary, secondary and tertiary care.

OBJECTIVE: To assess the quality of documentation on referral papers of patients referred to SPHMMC paediatric department

METHODOLOGY: A prospective institution based cross sectional was conducted among patients referred to SPHMMC from August 1 to 30, 2022, to determine the quality of referral paper. A total of 384 referral letters were recruited continuously during the study period until sample size fulfilled and data was entered and analysed by using SPSS version 25.

RESULTS: From a total 384 referral letters, 94.5% of the clinicians filled the demographic data (such as Name, Age, Sex, Address). Many of referral letters lacked important clinical information such as chief complaint (69.5%), P/E (60.7%), vital sign (47.9%). None of them addressed allergy history. 19.8% were not eligible

CONCLUSION: There was good documentation of socio demographic information in nine out of ten assessed referral letters.

Poor documentation of clinical information was seen in which only about one out of three referral letters contained clinical information of the patient. About nine out of ten documented administrative information, name and signature of referring clinicians but only half were mentioned their qualification. Reason for referral was documented in 96.6% of referral letters. From assessed referral papers 19.2% was eligible.

Table of Contents

Abstract.....	II
INTRODUCTION	II
OBJECTIVE:	II
METHODOLOGY:	II
RESULTS:	II
CONCLUSION:.....	II
List of tables	V
List of figures.....	VI
Abbreviations.....	VII
INTRODUCTION	1
1.1. BACK GROUND OF THE STUDY	1
1.2. STATEMENT OF THE PROBLEM	2
1.3. SIGNIFICANCE OF THE STUDY	2
LITERATURE REVIEW	2
OBJECTIVES	4
3.1. General Objectives.....	4
3.2. Specific Objectives	4
METHODS AND MATERIALS	5
4.1. Study Area	5
4.2. Study design and period.....	5
4.3. Source Population	5
4.5. Inclusion and Exclusion criteria.....	5
4.6. Sample size determination	5
4.7. Methods of Data collection	6
4.8. Variables	6
4.8.1. Dependent variable (outcome)	6
4.8.2. Independent variables	6
4.9. Data Quality Control.....	7
4.10. Methods Data Analysis and interpretation.....	7
4.11. Ethical considerations	7
4.12. Operational Definition	7
Results.....	8
DISCUSSION	14

Conclusion and recommendation..... 15

 Recommendation 15

 Limitation..... 15

REFERENCE..... 16

List of tables

Table 1 Socio demographic data documentation of patient referred to SPHMMC paediatric department August 2022, Addis Ababa, Ethiopia 8

Table 2 distribution of documentation of clinical information of patients referred to SPHMMC pediatric department August 2022, Addis Ababa, Ethiopia 9

Table 3 distribution of documentation of administrative details, referring clinician information and completeness referral papers of patients referred to SPHMMC paediatric department August 2022, Addis Ababa, Ethiopia 10

Table 4 distribution of documentation of reasons of referral of patients to SPHMMC pediatric department, August 2022, Addis Ababa, Ethiopia 11

Table 5 relationship between completeness of referral peppers, address of referring unit, types of referring unit, and qualification of referring clinician 12

List of figures

Figure 1 distribution of referral letters by qualification of referring clinicians..... 11

Abbreviations

SPHMMC= Saint Paul's Hospital Millennium Medical College

ECG=Electrocardiography

GP= General Practitioner

V/S=vital sign

HPI=history of present illness

Hx= History

Dx=Diagnosis

Rx =Treatment

FMOH=Federal Ministry Of Health

MRN= Medical Record Number

P/E=Physical Examination

PHC= Pre-Hospital Care

PI= Principal Investigator

SPSS=Statistical Package for Social Science

INTRODUCTION

1.1. BACK GROUND OF THE STUDY

Referral is a process by which a health worker transfers the responsibility of care temporarily or permanently to another health professional or social worker or to the community in response to its inability or limitation to provide the necessary care. It is done from the community to the primary care health service and to hospitals and within hospitals and vice versa(1).

The referral system helps to avoid an overload, limits over medication, over investigation and over treatment(2) .

Referral form should be always used for referral. The reason for referral should be clearly indicated on the referral letters. Basic patient workup should be completed depending on the availability the investigation and time. Writing in any communication and correspondence should be legible and easily readable (3).

Ethiopia is among the underdeveloped nations located in sub-Saharan Africa. To improve access to health services, the government, which is the main provider and financier of health care, has established a health service delivery system which require an effective two way referral connection(3).

The country health policy which was issued in 1993 has also got strategy in the development of an effective referral system by improving accessibility, optimizing utilization, assuring continuity and improved quality of care at all levels and strengthening the communication within the health care system(4).

The referral paper of the FDRE MOH contains socio-demographic details (name, age, sex and address), clinical information (chief complaint(s), HPI,P/E, V/S, DX, investigation result, reason of referral, Rx given, current medication and known allergies), administrative details (name of referring unit, name of receiving unit, specialty to which referred, date and time of referral, MRN), clinician information (name of referring physician, qualification, signature), feedback(5)

Referral letters of high quality are an essential part of good clinical care. Referral letters are a flexible means of transferring information between health professionals, as they can be adapted in form and content to cover both straightforward and complex clinical cases. In addition to this function, it is acknowledged that the referral letter can be used as a tool for clinical audit(6).

In the case of emergency referrals the details of patient's condition including brief summary of vital signs at the time of sending the patient and medications given should be clearly written in the referral paper(3).

Generally this research focused on the quality of documentation of referral papers among referred patients to SPHMMC paediatric department, whether the information (demographic, patient vital signs, Hx, P/E, Investigations done and resuscitation/medications given) transferred between health professionals through the referral papers consists all the necessary patient data for good clinical care and whether the referral letter is legible and easily readable.

1.2. STATEMENT OF THE PROBLEM

When patients are referred from one health facility to another, clear and adequate information should be documented in the referral paper. Referral papers between primary care physicians and tertiary care specialists is often haphazard, lacking consistency of content and were found to be grossly inadequate(6).

A patient should be referred only if there is a definite and convincing indication felt by the referring doctor for referral. The reasons for referral should be clearly indicated in the referral paper. The referral paper should have adequate patient data, should be legible and easily readable(3).

In general, it is the responsibility of the primary care physician to convey a clear message about the need and reason for referring the patient. However, problems in the referral process arise from lower level health care facilities when the primary care physician fails to clarify the reason for referral, or conveys inappropriate or incomplete information. In other words, the quality of documentation on referral papers has multiple problems in countries where paper based referral system is practiced.

1.3. SIGNIFICANCE OF THE STUDY

The aim of this paper was to describe the quality of referral letters coming to SPHMMC paediatric department which then add knowledge on understanding the problems of documentation on referral papers and communicating information between doctors at different institutions.

The data obtained in this study, may be used by concerned bodies to guarantee improvement in the quality of patient care.

LITERATURE REVIEW

Around five hundred (500) consecutive referral letters content referred by GP analysed in Manchester eye hospital, 81.1% had recorded the diagnosis, 10.8% had information about the duration of symptoms and 6% had information about treatment given(7).

A Study conducted on referral from primary health care to hospitals in Saudi Arabia identified the most frequently mentioned items in the referrals were demographic data (100%), specialty referred to (93.3%) and reason for referral (82.7%) .Other important items name of treating physicians(81.8%),diagnosis (86.0%),and decision on follow-up(80%) were missing(8) .

A review of 100 referral letters and reports randomly selected from two health centres in Riyadh showed that important clinical information such as past medical history(75%, current therapy(86%), final diagnosis(24.2%), and decision on future care were missing(9).

A study done at one paediatric emergency unit in Nigeria on 974 admitted referral papers has found missing information including examination finding (47.9%),provisional diagnosis(38.6%),writers addresses(32.5%),reason for referral(23.9%),patients sex(20.1%),and patients name(3.4%) and the most frequently stated reason for referral was poor or no response to the treatment given(17.8%)(10).

A study conducted at TASH hospital in 2014 on 1011 recruited referral papers showed the name of the patient featured in all (100%). Only 29.8% documented patient address, while 70.3% contains history of present illness; 30.3% put physical examination and 19.4% of them wrote all vital signs (11).

In conclusion, for a referral system to function properly and to make health services more effective, efficient and equitable to its users, to maximize utilization of limited resources, avoiding duplication of services, promoting cooperation and complementation of primary, secondary and tertiary health facilities and also in promoting continuity of treatment and ensuring sustainability of the services it is important using a standardized referral slip prepared by the FMOH , to write clearly all the necessary information and to send all investigation results with the patient whenever referring a patient to a higher institution(3).

OBJECTIVES

3.1. General Objectives

The general objective of the study was to assess completeness of documentation and reasons of referral on referral papers of patients referred to SPHMMC paediatric Department.

3.2. Specific Objectives

- To identify the completeness of demographic information and administrative details of referral papers coming to SPHMMC.
- To assess the completeness of referring clinician and documentation of clinical information of referral papers coming to SPHMMC.
- To assess the legibility of referral papers.
- To identify the reasons of referral on referral papers to SPHMMC.

METHODS AND MATERIALS

4.1. Study Area

This study was conducted in St. Paul's hospital millennium medical collage which is found in Addis Ababa, the capital of Ethiopia. St Paulo's hospital millennium medical college is the leading teaching and tertiary referral hospital under the federal ministry of Ethiopia.

It is built in 1961 by emperor Haile Selassie in collaboration with German evangelical church, as a source of medical care for underserved populations. It is a tertiary hospital which is governed by a board under federal ministry of healthy. Currently SPHMMC has 19 departments with 14 general speciality training 16 subspecialty training and giving clinical service for more than 400,000 patients /year both inpatient and outpatient clinics and catchment population of more than 5 million, the paediatric department has 8 beds at paediatric ICU with mechanical ventilators, 32 beds at paediatric ward, 24 beds at EOPD with nurses, residents and specialists

4.2. Study design and period

A Hospital based a prospective descriptive cross sectional study was conducted on referral paper documentation quality of patients who attended SPHMMC paediatric department from august 1-30/2022.

4.3. Source Population

The source population was all referral papers of patients who attended the paediatric department of SPHMMC, from (august 1 to 30 2022).

4.5. Inclusion and Exclusion criteria

Subjects for the study were all referral papers of patients who attended SPHMMC paediatric department during the data collection period. Those thorn referral letters with damaged written information were excluded

4.6. Sample size determination

The sample size in this cross sectional survey was determined using a single Proportion formula.

Where, n = the required sample size Z = standard score corresponding to 95% confidence interval

P = The estimated proportion or incidence of patients who came with referral papers assumed to be 50%

W = the margin of error (precision) 5%

Therefore The sample size required for the study was estimated to be using the above formula where n is the sample size, Z is the standard normal deviate, set at 1.96 (for 95% confidence

level), w is the desired degree of accuracy (taken as 0.05) and p , is the estimate of the proportion of our target population on incidence of patients who came with referral papers assumed to be 50%

Therefore

$$n = \frac{(1.96)^2 (0.5 \times 0.5)}{(0.05)^2} = 384$$

4.7. Methods of Data collection

Referral papers of patients coming to SPHMMC paediatric department during the study period were selected by systematic random sampling and photocopied by trained nurses working there and the information gathered were recorded on pre-designed and tested data sheets. The data sheets include demographic data of the patient referred, place of referral, specialty to which the patient was referred and other items that reflect the quality of documentation on referral letters.

4.8. Variables

4.8.1. Dependent variable (outcome)

Completeness of information of referral papers

4.8.2. Independent variables

Socio demographic

MRN

Name of referring unit

Name of receiving unit

The specialty to which the patient is referred

The chief complaint and duration

History of present illness

Reason for referral

Vital signs

Investigation

Physical examination

Name of the referring physician

Profession or Qualification of referring physician

Signature of referring physician

diagnosis

Treatment given

Current medication

Known allergies

4.9. Data Quality Control

To assure the quality of data, structured data collection were used. Data collectors were trained by the investigator. During the data collection procedures, all the collected data was reviewed and checked daily for its completeness.

4.10. Methods Data Analysis and interpretation

Data was entered, cleared and analysed using SPSS version 25 software package.. The generated data was compiled by frequency tables, graphs and pie charts. By selecting parameters important for patient care which are age, sex, V/S, HPI, P/E, Ds, result of investigation, Rx given, date and time of referral, and reason of referral, the cut point was extracted from previous researches which is >75 percentile or >18. If the sum of the points given for the above parameters is less than or equal to 18(75 percentile) the documentation of referral letters were considered incomplete and if the sum was above 18(75 percentile) it was considered as complete. And legibility was determined by the consensus between the collecting nurses and principal investigator and referral containing inappropriate and even one unreadable word was counted as not legible.

4.11. Ethical considerations

Permission to carry out the study was obtained from the Institutional Review Board (IRB) of SPHMMC department of paediatrics.

4.12. Operational Definition

Legibility was determined by the consensus between the collecting nurses and principal investigator and referral containing inappropriate and even one unreadable word was counted as not legible.

Results

A total of 384 referral letters were reviewed. The result of documentation of patient socio demographic data showed the name of the patients were mentioned in all 384 (100%), while age, sex, and address were mentioned in 325 (84.6 %), 272 (96.9%) and 373 (96.6 %) respectively. So a total of 94.5% of the clinicians filled the demographic data.

Table 1 Socio demographic data documentation of patient referred to SPHMMC paediatric department August 2022, Addis Ababa, Ethiopia

Variable	Categories	Frequency	Percentage
Name	Documented	384	100%
Age	Documented	325	84.6%
	Not documented	59	15.4%
Sex	Documented	372	96.9%
	Not documented	12	3.1%
Address	Not documented	12	3.1%
	Addis Ababa	228	59.4%
	Oromia	136	35.4%
	Others	8	2.1%

The result of quality of referral papers on clinical information showed that 117 (30.5%) documented chief complaint, 353(91.9%) were documented history of presented illness, 151 (39.3%) were documented physical examination, 2 (0.5%) were contained full vital sign, 200 (52.1%) were contained partial vital sign.

The working diagnosis were mentioned in 380 (99%), 171 (44.5%) put results of investigation, 271 (70.6%) were mentioned treatment given but only 187 (48.7%) were documented current medication. None of them addressed allergy history and 371 (96.6 %) mentioned reason for referral.

Table 2 distribution of documentation of clinical information of patients referred to SPHMMC pediatric department August 2022, Addis Ababa, Ethiopia

Variables	Categories	Frequency	Percentage
Chief complaint	Documented	117	30.5%
	Not documented	267	69.5%
History of present illness	Documented	353	91.9%
	Not documented	31	8.1%
Physical examination	Documented	151	39.3%
	Not documented	133	60.7%
Vital sign	Fully documented	2	0.5%
	Partially documented	200	52.1%
	Not documented	182	47.4%
Diagnosis	Documented	380	99%
	Not documented	4	1%
Result of investigation	Documented	171	44.5%
	Not documented	213	55.5%
RX given	Documented	271	70.6%
	Not documented	113	29.4%
Current medication	Documented	187	48.7%
	Not documented	197	51.3%
Known allergy	Documented	0	0
	Not documented	384	100%
Reason for referral	Documented	371	96.6%
	Not documented	13	3.4%

The result of documentation of administrative issue of referral papers showed, 318 (82.8%) put MRN. Name of referring and receiving unit were mentioned in 381 (99.2 %) and 380 (99%) respectively but only 183 (47.7%) were mentioned the specialty to which the patient referred.

369 (96.1 %) were mentioned date of referral, but only 45 (11.7%) were mentioned time of referral.

The result of quality of documentation referring clinician information showed the name of referring physician is documented in 355 (92.4%), 203 (52.9%) mentioned their profession,

while 366 (95.3%) put their signature. Around 216(56.3%) of assessed referral papers were of having poor quality.

From reviewed referral peppers 308 (80.2 %) were legible

Table 3 distribution of documentation of administrative details, referring clinician information and completeness referral papers of patients referred to SPHMMC paediatric department August 2022, Addis Ababa, Ethiopia

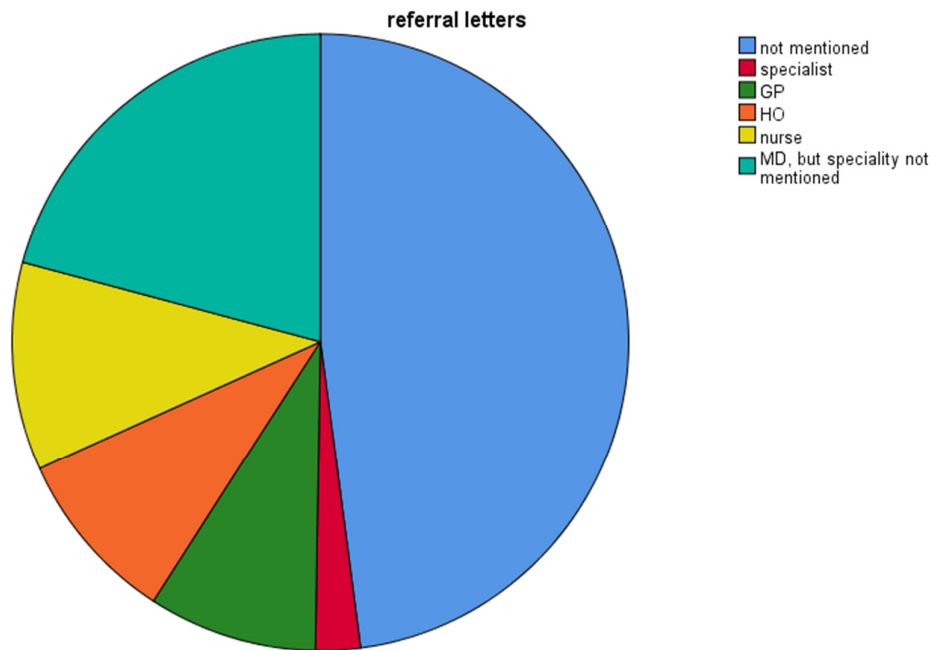
Variables	Categories	Frequencies	Percentage
MRN	Documented	318	82.8%
	Not documented	66	17.2%
Name of referring unit	Documented	381	99.2%
	Not documented	3	0.8%
Name of receiving unit	Documented	380	99%
	Not documented	4	1%
Name of specialty to which referred	Documented	183	47.7%
	Not documented	201	52.3%
Date of referral	Documented	369	96.1%
	Not documented	15	3.9%
Time of referral	Documented	45	11.7%
	Not documented	339	88.3%
Name of referring clinician	Documented	355	92.4%
	Not documented	29	7.6%
Profession	Documented	203	52.9%
	Not documented	181	47.1%
Signature	Documented	366	95.3%
	Not documented	18	4.7%
Completeness	Good	168	43.8%
	Poor	216	56.3%

Table 4 distribution of documentation of reasons of referral of patients to SPHMMC pediatric department, August 2022, Addis Ababa, Ethiopia

Reason for referral	Frequency	Percentage
Not mentioned	13	3.4%
Lack of bed	13	3.4%
Patient preference	6	1.6%
Financial problem	1	0.3%
For further investigation and management	351	91.4%

The above table showed most reason for referral for most of the patient were for further investigation and management 351(91.4%).

Figure 1 distribution of referral letters by qualification of referring clinicians.



This figure showed majority of referring clinicians didn't document their qualification on the referral letters 184(47.9%), 80(20.8%) were referred by MD but qualification were not identified, 42(10.9%) were referred by nurses, 35(9.1%) were referred by HO, 34(8.9%) by GP, and 9(2.3%) were by specialist.

Table 5 relationship between completeness of referral papers, address of referring unit, types of referring unit, and qualification of referring clinician

Variables	Categories	Completeness of referral paper		Crude OR (95% CI)	p-value	Adjusted OR(95% CI)
		Good	poor			
Address of referring unit	Not mentioned	1	11	1		1
	Addis Ababa	103	125	0.03(0.02-0.407)	0.065	0.056(0.003-1.194)
	Oromia	58	78	0.275(0.05-1.390)	0.486	0.532(0.09-3.146)
	Others	6	2	0.248(0.048-1.237)	0.286	0.389(0.068-2.208)
Types of referring unit	Not mentioned	1	2	1		1
	Government hospital	34	31	1.583(0.121-20.686)	0.362	4.099(0.197-85.348)
	Government health center	123	155	3.473(1.229-9.8)	0.532	1.504(0.419-5.407)
	Private hospital	4	9	2.513(0.974-6.484)	0.496	1.467(0.487-4.413)
	Private clinic	6	19	1.407(0.316-6.265)	0.489	0.555(0.104-2.948)

Qualification of referring physician	Not mentioned	58	126	1		1
	Specialist	6	3	0.438(0.256- 0.75)	0.05	0.387(0.200 -0.748)
	GP	18	16	1.902(0.445- 8.139)	0.340	2.200(0.436 -11.109)
	HO	19	16	1.070(0.479- 2.390)	0.728	0.860(0.367 -2.015)
	Nurse	26	16	1.13(0.509- 2.505)	0.977	0.986(0.395 -2.464)
	MD but specialization not documented	41	39	1.546(0.722- 3.310)	0.494	1.370(0.556 -3.375)

The above table (table 5) showed relationship between completeness of documentation of referral letters and qualification of referring clinician has association by both multivariate and bivariate analysis, in which the senior referral was associated with poor referral quality.

DISCUSSION

A total of 314 referral letters were assessed during the period of this study. A total of 94.5% of the clinicians filled the demographic data. The finding of this study showing clinical information of the patient was sub optimal. Majority of referring clinicians didn't document their qualification on the referral letters 47.9%. In this study from reviewed referral letters around 19.2% was eligible. Reason for referral was documented in 96.6% of referral letters. In general found that 56.3% letters were of poor quality.

A total of 94.5% of the clinicians filled the demographic data such as age, sex, and address, which was almost comparable with another study done in Ethiopia(93%), Nigeria(90%) and Saudi Arabia(88%).(2, 10, 11)

The finding of this study showing clinical information of the patient was sub optimal. Chief complaint was mentioned in one out of three referral letters which was similar with another study done in Ethiopia (31.1%) and significantly lower than study done in Saudi Arabia (96.1%). Similarly documentation of some clinical finding such as vital sign, physical examination result of investigation were documented in 1 in 3 referral letters which was comparable with study done in Ethiopia, but lower than study done in Saudi Arabia. This may be due to different referral method, lower clinician to patient ratio in our setup. More than half were documented treatment given and none documented history of allergy which was similar to study done in Saudi Arabia. (2,11)

Around Nine out of ten referral papers contained the name and signature of referring clinicians which were comparable with study done in Saudi Arabia and south Africa, but only half were mentioned their qualification which was similar with prior study done in Ethiopia which may be due to space is not provided on most of referral papers for documenting qualification of the clinician. Date of referral was mentioned in more than 96 % but only 11% contained the time at referral which may be due to majority of referral papers contained only space for date (2,11,12).

In this study from reviewed referral letters around 19.2% was eligible, which was comparable with another study done in Ethiopia (12%).(11)

Reason for referral was documented in 96.6% of referral letters which was almost comparable study done in Ethiopia (93.8%); Saudi Arabia (90%) (2,11).

In general it was found that 216(56.3%) letters were of poor quality .This finding goes with study done in south Africa(62.6%) , but significantly higher in Saudi Arabia(17.6%), may be referral letter made by printed letters and number of physicians to patient ratio is higher (2,13).

Conclusion and recommendation

There was good documentation of socio demographic information in nine out of ten assessed referral letters.

Poor documentation of clinical information was seen in which only about one out of three referral letters contained clinical information of the patient.

About nine out of ten were documented administrative information, name and signature of referring clinicians but only half were mentioned their qualification.

Reason for referral was documented in 96.6% of referral letters

From assessed referral papers 19.2% was eligible.

Referrals coming from Specialists were associated with poor quality of referral papers (p=0.005, AOR=0.387)

Generally it was found that 56.3% letters were of poor quality

Recommendation

- Training of health care providers will improve the ability to write effective referral letters.
- Introduction of proper and uniform structured referral letter forms in both HCs and hospitals is strongly recommended
- Electronic referrals letters will increase the legibility and quality of referral
- Increasing the number of seniors will reduce the poor quality found during the study

Limitation

Lack of clear cut point on national guide line which makes one referral papers complete

REFERENCE

1. Addis A. Guideline for implementation of a patient referral system. RepositorylifphcOrg. 2010;(May,2010):16.
2. Al-Alfi MA, Al-Saigul AM, Abed-Elbast AM, Sourour AM, Ramzy HA. Quality of primary care referral letters and feedback reports in buraidah, Qassim region, Saudi Arabia. J Fam Community Med. 2007;14(3):113–7.
3. Hospitals D, Hospitals G. Referral Guidelines for the common conditions for Institutions under DME & DHS in Kerala Description. (2):1–54.
4. Wamai RG. Reviewing Ethiopia’s health system development. Japan Med Assoc J. 2009;52(4):279–86.
5. ethiopia Ministry of Health. Health Sector Strategic Plan III. Gov Ethiop. 2010;
6. Wåhlberg H, Valle PC, Malm S, Broderstad AR. Impact of referral templates on the quality of referrals from primary to secondary care: A cluster randomised trial. BMC Health Serv Res [Internet]. 2015;15(1):1–10.
7. Jones NP, Lloyd IC, Kwartz J. General practitioner referrals to an eye hospital: A standard referral form. J R Soc Med. 1990;83(12):770–2.
8. Jarallah J. Referral from primary care to hospitals in Saudi Arabia: 1) quality of referral letters and feedback reports. J Fam Community Med. 1998;5(2):15–22.
9. Jarallah JS. The quality of referral letters in two health centers in Riyadh. Ann Saudi Med. 1991;11(6):658–62.
10. Orimadegun AE, Akinbami FO, Akinsola AK, Okereke JO. Contents of referral letters to the children emergency unit of a teaching hospital, southwest of Nigeria. Pediatr Emerg Care. 2008 Mar;24(3):153–6.
11. Taye M. Assessment of completeness of documentation of referral papers and reasons for referral among referred patients to TASH ED. AAU Institutional Repos [Internet]. 2014;
12. Janati A, Amini A, Adham D, Naseriasl M. assessing the quality of referral letters written by generalpractitioner. reports public Heal. 2017;33(2):1–7.
13. Mabuza L, Maduna PMH, Mhlongo SWP, Ndimande J V, Longo-Mbenza B. Quality of general practitioner referral letters to a South African tertiary hospital: determinants of quality content and good practice. J Public Heal Epidemiol [Internet]. 2011;3(11):
14. Esan O, Oladele O. Referral letters to the psychiatrist in Nigeria: Is communication adequate? Afr Health Sci. 2016;16(4):1023–6.

Table showing the scoring system for the assessment of the quality of referral papers

characteristic	Score	
Patient name	Documented=1	Not documented=0
Patient age	Documented=1	Not documented=0
Patient sex	Documented=1	Not documented=0
Patient address	Documented=1	Not documented=0
Medical record number(MRN)	Documented=1	Not documented=0
Name of referring unit	Documented=1	Not documented=0
Name of receiving unit	Documented=1	Not documented=0
Speciality to which patient was referred	Documented=1	Not documented=0
Name of referring physician	Documented=1	Not documented=0
Profession or quality of referring physician	Documented=1	Not documented=0
Signature of referring physician	Documented=1	Not documented=0
Date of referral	Documented=1	Not documented=0
Time of referral	Documented=1	Not documented=0
Chief complaint and duration	Documented=1	Not documented=0
History of present illness	Documented=1	Not documented=0
Physical examination finding	Documented=1	Not documented=0
Vital signs	Documented=1	Not documented=0
Diagnosis	Documented=1	Not documented=0
Results of investigation	Documented=1	Not documented=0
Treatment given	Documented=1	Not documented=0
Current medication	Documented=1	Not documented=0
Known allergies	Documented=1	Not documented=0
Reason for referral	Documented=1	Not documented=0
Legibility of writing	Documented=1	Not documented = 0
	Total	25

