ADDIS ABABA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

COLLEGE OF HEALTH SCIENCE

SCHOOL OF MEDICINE

DEPARTMENT OF EMERGENCY MEDICINE

Assessment of completeness of documentation of referral papers and reasons for referral among referred patients to TASH ED.

By

Mulunesh Taye(Bsc,N)

A THESIS SUBMITTED TO SCHOOL OF GRADUATE STUDIES OF Addis Ababa UNIVERSITY COLLEGE OF HEALTH SCIENCE, DEPARTMENT OF EMERGENCY MEDICINE FOR THE PARTIAL FULFILLMENT OF THE REQUIREMENTS OF MASTER DEGREE IN EMERGENCY MEDICINE

June, 2014

ADDIS ABABA, ETHIOPIA

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Abstract

INTRODUCTION: In the referral process, referral papers are the standard and typically the sole method of communicating information between general practitioners and hospital specialists. Sub-optimal referral letter can be a source of poor continuity of care (delayed diagnosis, multiple medication, multi-drug resistance, high litigation risk, unnecessary testing and extra-medical costs) and therefore, decrease the quality of care. 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: The aim of this study is to assess the quality of documentation on referral papers of patients referred to Tikur Anbessa Specialized Hospital Emergency adult, pediatrics and gynecology and obstetrics departments.

METHODOLOGY: This study was conducted at TASH EDs from December- June 2014 by implementing a retrospective cross sectional study design. A total of 1011 patient referral papers were recruited by simple random sampling method. Data was collected from patients' individual folders retrospectively. For collecting relevant information, data was collected by using dummy tables and analyzed using SPSS version 20.0.

RESULTS: All 1011 eligible referral letters from Tikur Anbessa Specialized Hospital Emergency Department were systematically assessed in this study. The result shows that the **name of the patient** featured in **all** of referral letter (**100%**, n=1011). Only **29.8%** of referral letters bearing the **patient's address** while **70.3%** of referral letters contain **history of present illness**; **30.3%** of referral letter contain **physical examination** and **19.4%** of referral letters contain **all the vital signs**. **The histories of allergies were** reflected in **none** of the referral letters. About **12.2%** referral letters **were not entirely legible**.

CONCLUSION: Most of the socio-demographic data except the address were documented in the referral papers. The clinical information section (the most important part) of the referral paper was strikingly deficient especially history of allergy, vital signs, physical examination findings, chief complaint(s), results of basic investigations, treatment given. Only the working diagnosis and reason for referral were documented in most referral papers. In a quarter of referral papers assessed, the receiving unit was not mentioned, of which more than half wrote to any hospital. Signature of the referring clinician rather than name or qualification was documented.

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Abbreviations

AARHB	Addis Ababa Regional Health Bureau
CSA	Central Statistics Authority
ECG	Electrocardiograph
ED	Emergency Department
ETB	Ethiopian Birr
GP	General Practitioner
Hx	History
IRB	Institutional Review Board
MOH	Ministry of Health
MRN	Medical Record Number
Obgyn	Obstetrics and Gynecology
P/E	Physical examination
PHC	Pre-hospital Care
PI	Principal Investigator
SOPs	Standard Operating Procedures
SPSS	Statistical Package for Social Science
TASH ED	Tikur Anbesa Specialized Hospital Emergency Department

CHAPTER ONE
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. Referral is a two way process and ensures that a continuum of care is maintained to patients or clients. It is done from the community to the primary care health service and to hospitals and within hospitals and vice versa. It also involves not only direct patient care but support services such as transport and communication. (1)

Referral can be vertical as in the hierarchical arrangement of the health services from the lower end of the health tier system to the higher ones. It also can be horizontal between similar levels of facilities in the interest of patients for cost, location and other reasons. Referrals can also be diagonal when a lower level health facility directly refers patients to a specialized facility without necessarily passing through the hierarchical system. Referrals can be among public, private, community based and other traditional and alternative medicine practitioners and sometimes social services are also included. (1)

Since all health care requirements cannot be obtained at any given level of the system, an effective referral mechanism is a key element in the delivery of care. (2)

The reasons or criteria for referral should be medical objective and in the best interest of the patient or client. Good reasons for referrals include, when a patient needs an expert advice as determined by the attending health professional, when technical examination is required that is not available at the referring facility, when a technical intervention that is beyond the capabilities of the facility is required, when patients require inpatient care that cannot be given at the referring facility, when the referring facility cannot no more accept patients due to shortage of beds and unavailability of professionals, referrals are also made to the lower level health facilities and community based organizations in the best interest of the patient depending on the condition of the patient, the capacity of the lower level health facility /community based organization.(1)

Basic patient work up at the level of referring center should as far as possible be completed depending on the availability of facilities for investigation as well as time. Efforts should be taken from the referring end to provide investigation results pending if any to be later collected and sent to the referred institution through the relatives of the patient.(3)
Writing in any communication and correspondence should be legible and easily readable. The diagnosis to be recorded is the most likely working diagnosis felt by the referring doctor at the time of referral. (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.(4)

The Ethiopian health tier system comprises of primary level health care consisting of health centers in urban areas, secondary level health care consisting of general hospitals and tertiary health care consisting of specialized hospitals.(1)

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.(5)

The Federal Ministry of Health of Ethiopia initiates legislation, develops policy and SOPs for the implementation of the referral system; sets standards for health facilities across the new tier system; develops the standards for resources to be available at health facilities; capacity building of the referral system; monitors and coordinators referral systems at national level; revises and updates the referral system as appropriate and works with regions for the preparation of national directory of health services.(1)

Each of the health facilities communicate through a referral system. The system is basically paper based that uses referral papers to communicate with the physicians at the higher referral units. Referral slip is a critical component of the referral communication system. The Federal Ministry of Health has prepared standard referral slip to be used by all health institutions in order to optimize utilization of health care facilities at all levels. 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 . ((6)

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. (7)

Good quality referral letters are an essential part of good clinical care and act as the interface between health care professionals in primary and secondary care. As such they have a number of functions: the referral letter provides patient information, which will include demographic details, as well as clinical information relating to the reason for the referral decision. In addition, the referring professional may choose to include information which would be otherwise unavailable to the receiving health professional. The referral letter is also used by medical records, appointments and clinic staff and necessarily includes a significant amount of administrative information. (7)

The medical officer who is treating the patient is to take initiative for referral and sign in the referral paper. Referral form should be always used for referral. The reasons for referral should be clearly indicated in the referring letter. Referral should be accompanied with sufficient documents like referral letter and supporting materials like X-ray, ECG or other similar investigation reports.(3)

Adequate clinical information is essential to allow the tertiary care professional to assess clinical need and urgency. In the referral process, letters are the standard-and typically the sole-method of communicating information between general practitioners and hospital specialists. These letters have been the subject of comment for many years: written communication between primary care practitioners and secondary care specialists is often haphazard and lacking consistency of content. (7)

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)

Therefore, this research focused on the quality of documentation of referral papers among referred patients to TASH ED, 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 OFTHE PROBLEM

One important and critical component of the referral process is the referral paper. 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.(7)

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(s) 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(s) for referral, or conveys inappropriate or incomplete information. (8)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 is to describe the essential elements of information, to assess the quality of content, to identify the determinants of both good referral paper and practice from referral papers received at a tertiary hospital.(TASH ED)

The data obtained in this study, may be used by concerned bodies for planning and evaluating appropriateness and clarity of patient information and to guarantee improvement in the quality of patient care.

This study may add knowledge on understanding the problems of documentation on referral papers and communicating information between doctors at different institutions.

CHAPTER TWO
LITERATURE REVIEW

A good referral system increases the efficiency of the health system by maximizing the appropriate use of health care facilities. One of the most important components of the referral process is the referral paper. When patients are referred from one health facility to another, clear and adequate information should be documented in the referral paper.

A study conducted in Manchester eye hospital to assess general practitioner (GP) referrals by analyzing 500 consecutive referral letters content, this study examined the content and quality of referral letters that are extremely variable in terms of presentation, information provided and the need for priority. In 500 referral letters, 81.1% had recorded the diagnosis, 10.8% had information about the duration of symptoms and 6% had information about treatment given.(9)

A Study conducted 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%).The quality of referral letters was poor in 23% with some variation between the different regions**. (8)**

Similarly, a study conducted in a review of 100 referral letters and reports randomly selected from two health centers in Riyadh identified that important clinical information was lacking from both referral letters. For instance, past medical history, current therapy, final diagnosis, and decision on future care were omitted in 75%, 86%,and 24.2% of the letters and reports, respectively. A quantitative evaluation of the quality of letters revealed that 26% of the referral reports were poor. The referral process needs tremendous improvement if the quality of patient care is to be guaranteed**. (10)**

A study conducted at the Outpatient Department of the Dr. George Mukhari Hospital in Pretoria also found poor quality of documentation on referral letters. A sample of 303 general practitioner (GP) referral letters was collected. The reason for the referral was reflected in 267 (88%) of the letters. 186 (61.3%) of the referral letters were entirely legible. Proportions of optimal referral letter and good practice were 24.9% (n=77) and 6.5% (n=20), respectively. There is an urgent need for improvement in the deficient areas to optimize patient care in Pretoria Region. **(11)**

A study done at the pediatric emergency unit of the University College Hospital, Ibadan, Nigeria has found only 54.8% of patients admitted with referral letters. Letters were written by physicians (69.2%), registered nurses (21.3%), hospital assistants (2.1%), traditional birth attendants (0.4%), and non-health workers (0.3%). The identity of the writers of 65 letters (6.7%) could not be defined. More than half of the letters did not contain the patients' age, the treatment given, the findings from the investigations performed, the medical history, and what the writers expect from the referral. Other missing information includes examination findings (47.9%), provisional diagnosis (38.6%), history of presenting complaints (36.6%), writers' addresses (32.5%), reasons for the referral (23.9%), patients' sex (20.1%), and patients' names (3.4%). The most frequently stated reason for referral was poor or no response to the treatment given (17.8%).(17)

Study done in TASH by Enquasilasse F, 2009 shows the findings on referral slips indicated that substandard formats ranged from those missing names (0.1%) to chief complaints of patients were documented in 991 (61.9%) of the papers, not documented in 31 (1.9%) referral papers while the rest 578 (36.1%) didn't have the variable on the slip. Clinical findings of patients were written on 1383 (86.4%) collected papers; there was no documentation in 159 (9.9%). Concerning the type of treatment given, 627 (39.2%) papers have documentations, 238 (14.9%) documented that treatment was 'not given' and in 675 (42.2%) papers there was no documentation at all, and the variable did not exist in 60 (3.8%) referral papers**.(12)**

Every variable found in the referral paper has got its own importance in conveying information. Inadequate notes and incomplete information impact the quality of the referral process negatively which accounts for the difficulty to address the patient's problem which in turn lead to additional visits, redundant testing and, therefore, leading to unnecessary cost.(13)

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)

CHAPTER THREE
OBJECTIVES

3.1. General Objectives

The general objective of the study is to assess completeness of documentation and reasons of referral on referral papers of patients referred to Tikur Anbessa Specialized Hospital Emergency Departments .

3.2. Specific Objectives

- To identify the completeness of demographic information of referral papers coming to TASH ED.
- To describe the documentation of administrative details on the referral papers coming to TASH ED.
- To determine the completeness of referring clinician information of referral papers coming to TASH ED.
- To assess the documentation of clinical information of referral papers coming to TASH ED.
- To assess the legibility of referral papers.
- To identify the reasons of referral on referral papers to TASH ED.
- To determine the feedback which is written from TASH ED.

CHAPTER FOUR

METHODS AND MATERIALS

4.1. Study Area and Period

This study was conducted in Tikur Anbessa Specialized Hospital Adult, Gynecology and Obstetrics and Pediatrics Emergency Departments from December 2013 up to June 2014 which have been providing organized emergency care services.

4.2. Study design

This study was a retrospective descriptive cross- sectional, hospital based study that assessed referral paper documentation quality of patients who attended emergency departments(Adult ED, Obestatric ED and Pediatrics ED) of Tikur Anbessa Specialized hospital, Ethiopia from July 2013 to March 2014.

4.3. Source Population

The source population was all referral papers of patients who attended the adult, pediatric and ob-gyn emergency departments of Tikur Anbessa Specialized hospital, Ethiopia from July 2013 to March 2014.

4.5. Inclusion and Exclusion criteria

Subjects for the study included all referral papers of patients who attended Tikur Anbessa Specialized Hospital Adult,Gynecology and Obestatric and Pediatric Emergency Departments during the data collection period. Referral papers of patients who attended Tikur Anbessa Specialized Hospital Adult,Gynecology and Obestatric and Pediatric Emergency Departments outside of the data collection period were excluded .

4.6. Sample size determination

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

$$n = \frac{z^2_{\alpha/2} p(1-p)}{w^2}$$

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 is 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, $n = \frac{(1.96)^2 \ (0.5x0.5)}{(0.05)^2}$

$= 384$

Since the number of population is below 10,000 the following formula is used for adjustment.

$$nf = \frac{n}{1 + \frac{n}{N}} = \frac{384}{1+\frac{384}{2800}} = 337$$

nf=337 (for each department)

nf=337×3=1011

4.7. Sampling techniques and procedures for record reviews**.**

Referral papers of patients who attended the hospital ED(adult, pediatrics and Obgyn) within a period of the data collection were included. Referral papers were evaluated (collected) from patients' individual folders retrospectively by systemic random sampling method.

4.8.1 Methods of Data Collection for record reviews

The data was collected by using Dummy table. Three nurses were involved during data collection process who were trained on how to collect the relevant data collection sheet. PI was continuously supervising the data collectors.

The Card number of the patient was documented in order to prevent the participants from getting missed and it was erased after data collection.

4.8.2 Instrument

Referral papers of patients coming to TASH EDs was randomly selected using random tables, and the information gathered was 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.

4.9. Variables

4.9.1. Dependent variable (outcome)

Completeness of information of referral papers

4.9.2. Independent variables

- Socio demographic
- MRN
- Name of referring unit
- Name of receiving unit
- The specialty to which the patient is referred
- The chief compliant 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
- reasons of referral
- feedback

4.10. Data Quality Control

To assure the quality of data, structured data collection was 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.

4.11. Methods Data Analysis and interpretation

Data entry and analysis was done using SPSS version 20.0 for windows. The data was double entered and cleaning was done. 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, Dx, result of investigation, Rx given, date and time of referral, and reason of referral, the mean was calculated to be 18. If the sum of the points given for the above parameters is less than or equal to 18 the documentation of referral letters is considered incomplete and if the sum is above 18 it is considered as complete. legibility is considered if all three data collectors agree that the referral paper is legible.

4.12. Ethical considerations

Confidentiality of the data was kept strictly, only the primary investigator had full access. The copy of the referral letter was kept in a locker; name was not displayed during the collection.

Permission to carry out the study was obtained from the Institutional Review Board (IRB) of Addis Ababa University College of health science, school of medicine and department of emergency medicine, pediatrics and ob-gyn.

4.13. Operational Definition

If the feedback slip is still attached with the referral paper, it is considered as no feedback given to the referring unit.

CHAPTER FIVE
RESULTS

A total of 1011 referral letters were reviewed. The sample was randomly selected by means of the Table of Random Numbers, so that each referral letter had an equal chance of being included in the study. Each referral letter was photocopied by the researcher. The content of the referral letters was assessed according to the specified variables in the structured data collection instrument: date & time of referral, patient demographic details, history, examination, investigations, assessment, management offered at the referring unit, and legibility of the referral letters. Each referral letter was independently evaluated by investigator and scored on legibility and the final result was reached by consensus. Given that a referral letter, as a communication medium should be legible in its entirety, a referral letter was regarded as not entirely legible if it contained a word that could not be read by investigator, rendering the phrase or sentence in which it was contained meaningless.

The result of quality of documentation of patient information or socio-demographic data shows the name of the patient featured in all referral letter (100%, n=1011). Although all patient had their names reflected, age of the study participant was mentioned in 88.5% (n=895) and the sex is mentioned in 90.6% (n=916) & only 29.8% (n=301) of referral letters bearing the patient's address.

Table 1: Distribution of documentation of Socio-demographic data of patients referred to TASH ED December 2013, Addis Ababa, Ethiopia

Variables	Categories	Frequencies	Percentage
Name	Present	1011	100%
Age	documented	895	88.5%
	Not documented	116	11.5%
Sex	documented	916	90.6%
	Not documented	95	9.4%
Address	documented	301	29.8%
	Not documented	710	70.2%

The result of quality of documentation of clinical information of patients show that 31.1% indicated the patient's main complaint; 70.3% contain history of present illness; 30.3% contain physical examination,19.4% contain all the vital signs, 15.3% contain partial vital signs. The history of allergies was reflected in none of the referral letters. The working diagnosis appeared in 94.3%, only 41.5% contain results of investigation. Pre-referral treatment appeared in 43.4%, 95.7% of referral letters stated the reason for the referral.

Table 2: Distribution of documentation of clinical information of patients referred to TASH ED December 2013, Addis Ababa, Ethiopia

Variables	Categories	Frequencies	Percentage
Chief compliant	documented	314	31.1%
	Not documented	697	68.9%
History of present illness	documented	711	70.3%
	Not documented	300	29.7%
Physical examination	documented	306	30.3%
	Not documented	705	69.7%
Vital sign	Mentioned partially	196	19.4%
	Mentioned complete	155	15.3%
	Not mentioned	660	65.3%
Diagnosis	documented	953	94.3%
	Not documented	58	5.7%
Result of investigation	mentioned	420	41.5%
	Not mentioned	591	58.5%
Reason of referral	Mentioned	948	93.8%
	Not mentioned	63	6.2%
RX given	documented	439	43.4%
	Not documented	572	56.6%
Current medication	Mentioned	49	4.8%
	Not mentioned	962	95.2%
Known allergy	Not mentioned	1011	100%

The result of quality of documentation of administrative details of referral papers show 62.5% contain MRN, 95.3% contain the name of referring unit and 73.8% contain the receiving unit name, while 26.2% (n=265) didn't contain the name of the receiving unit of which more than half 14.1% (n=143) wrote to any hospital.

Less than half 48.4% indicated the recipient department to which the patient was being referred. Nine out of ten (90.8%) bore the date on which the referral letter was written but only 31.3% contain time of referral.

Table 3: Distribution of documentation of administrative details of patients referred to TASH ED December 2013, Addis Ababa, Ethiopia

Variables	Categories	Frequencies	Percentage
MRN	documented	632	62.5%
	Not documented	379	37.5%
Name of referring unit	Mentioned	963	95.3%
	Not mentioned	48	4.7%
Name of receiving unit	Mentioned	746	73.8%
	Not mentioned	265	26.2%
Name of specialty to which referred	Mentioned	489	48.4%
	Not mentioned	522	51.6%
Date of referral	documented	918	90.8%
	Not documented	93	9.2%
Time of referral	documented	316	31.3%
	Not documented	695	68.7%

The result of quality of documentation of referring clinician information shows that the name of the referring physician was present in 61.2%, qualifications was mentioned in 46.2% and signature was found in 95.5% of referral letters. But there is no documentation of the physician's registration number, telephone number or address.

Table 4: Distribution of documentation of referring clinician information of patients referred to TASH ED December 2013, Addis Ababa, Ethiopia

Variables	Categories	Frequencies	Percentage
name of the referring physician	documented	619	61.2%
	Not documented	392	38.8%
Qualification	documented	467	46.2%
	Not documented	544	53.8%
Signature	documented	966	95.5%
	Not documented	45	4.5%

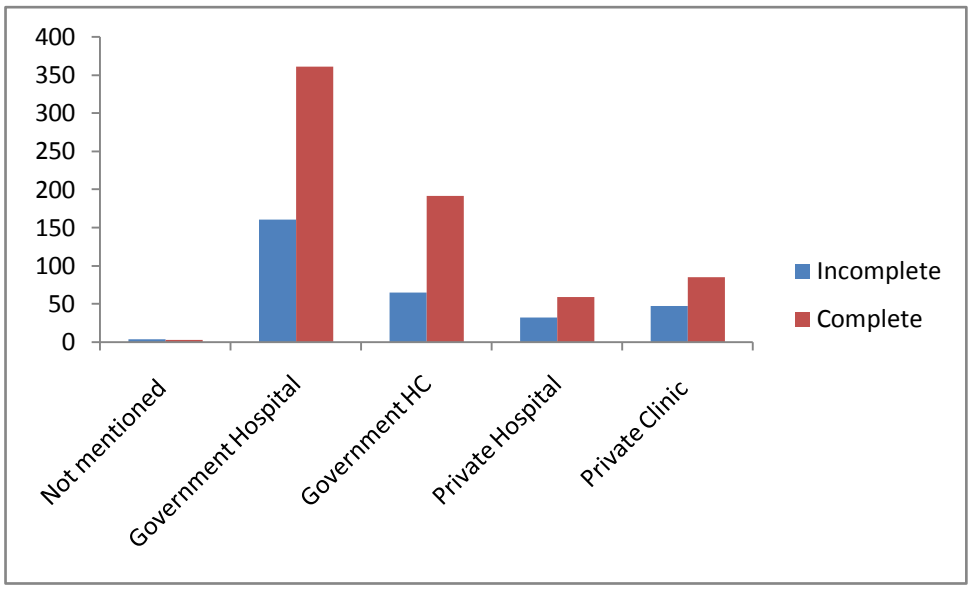
About 123 (12.2%) of referral letters were not entirely legible.

Table 5 Relationship between completeness of referral letters and name of referring unit, qualification and type of ED of TASH

Variables	Categories	Completeness of referral letter		Crude OR (95% CI)	Adjusted OR (95 % CI)
		Incomplete	Complete		
Name of referring unit	Not mentioned	4	3	1.00	1.00
	Government Hospital	161	361	0.595(0.132, 2.688)	0.701(0.151, 3.249)
	Government HC	65	192	0.451(0.098, 2.070)	0.463(0.098, 2.196)
	Private Hospital	33	59	0.746(0.157, 3.536)	0.705(0.145, 3.425)
	Private Clinic	48	85	0.757(0.162, 3.506)	0.705(0.148, 3.363)
Qualification	Not mentioned	179	415	1.00	1.00
	Specialist	11	8	**3.188(1.261, 8.059)**	**2.601(1.003, 6.742)***
	Doctor (GP)	93	199	1.083(0.801, 1.466)	0.985(0.712, 1.364)
	Health Officer	6	11	1.265(0.461, 3.472)	1.200(0.426, 3.381)
	Nurse	21	68	0.716(0426, 1.204)	1.181(0.421, 2.154)
Ward	Adult	105	232	1.00	1.00
	Gynecology	70	267	**1.477(1.075, 2.028)**	**1.646(1.173, 2.309)***
	Pediatrics	135	202	**0.579(0.408, 0.922)**	**0.643(0.443, 0.933)***

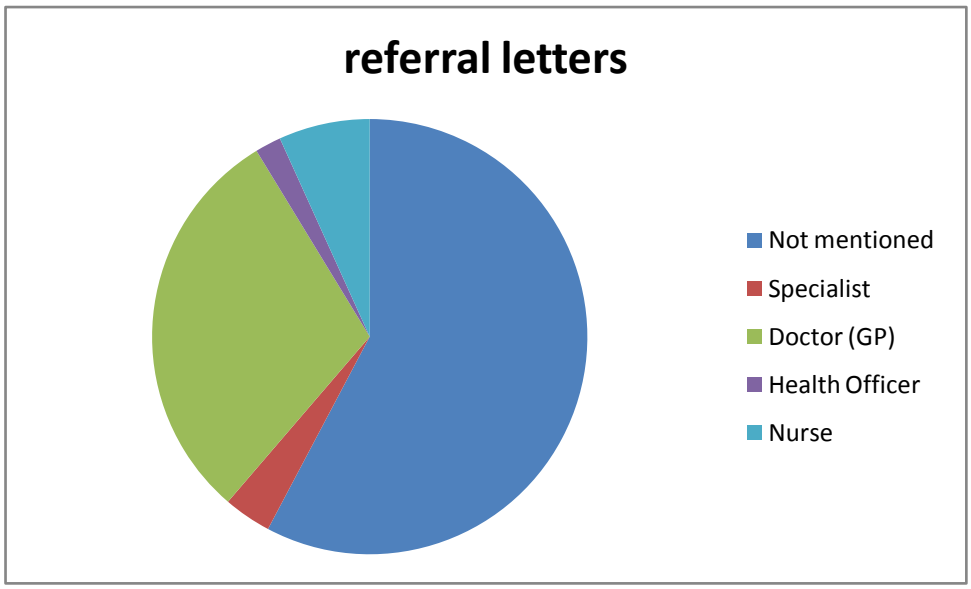
The relation between completeness of documentation of referral letters and specialists qualification have association by both multivariate and bivariate analysis and also there is association between pediatrics ED and completeness of documentation and gynecology ED and incompleteness of documentation of referral letters.

Figure 1 Distribution of referring unit and completeness



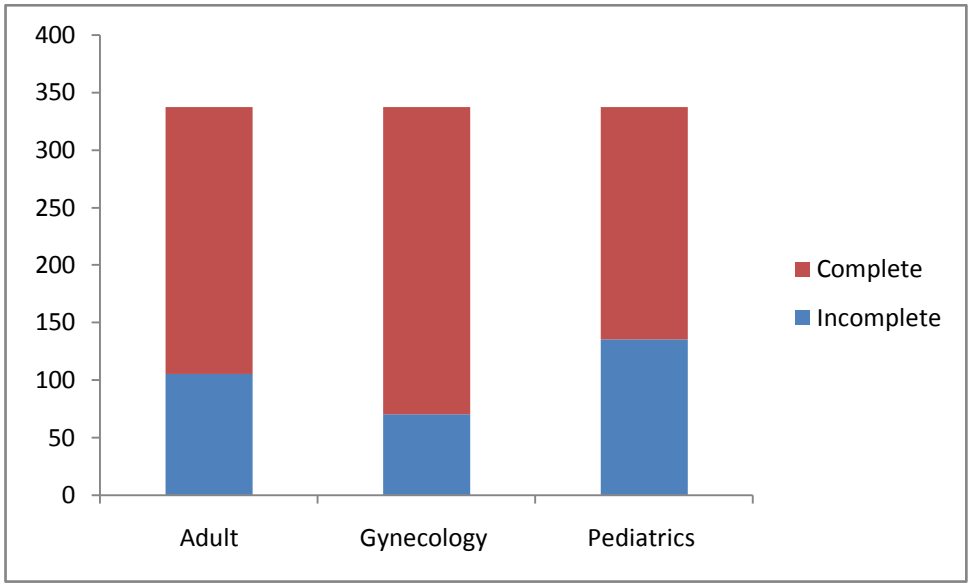
As shown in the above graph, most of the referral letters from government (hospital and health centers) as well as private (clinics and hospitals) institutions have complete documentation.

Figure 2 Distribution of referral letters by qualification of persons referring to TASH ED



As described in the above chart, in the majority of the referral letters 59%(n=594) the qualification of the referring clinician was not mentioned. most of the referral is by general practitioners 29%(n=292), followed by nurses 9%(n=89), specialists 1.9%(n=19) and health officers1.7% (n=17).

Figure 3 Distribution of completeness of referral letters documentation between adult, pediatrics and gynecology ED of TASH



As shown in the above graph, most referral letters to pediatrics ED are complete and those to gynecology ED are incomplete.

Table:- 6 Distribution of documentation of reason(s) of referral of patients referred to TASH ED December 2013, Addis Ababa, Ethiopia

S. No	**Reason of referral**	Frequency	%
1	Not documented	63	6%
2	Lack of Bed	89	9%
3	Financial Problem	19	2%
4	Patient Preference	10	1%
5	Lack of Service	830	82%
	For Better Management	621	
	Lack of Senior	39	
	For Neurological Evaluation	24	
	For Cardiac Evaluation	25	
	For ENT Evaluation	2	
	For Orthopedics Evaluation	20	
	For ICU Care	29	
	Lack of OR Materials	17	
	For Blood Transfusion	19	
	Lack of Water	2	
	Lack of Electricity	2	
	Lack of X-ray	2	
	For Laboratory Work up	20	

CHAPTER SIX
DISCUSSION

In this study the demographic data documentation is better than studies done in Nigeria(17) and lower than those in Saudi Arabia(8). The patients name is documented in all referral letters. The age and sex is documented in nine out of ten referrals. only one in three referral letters contain the address of the patient.

The findings in this study in regard to the documentation of clinical findings which are important for management of patients is markedly sub-optimal. The patients main(chief) complaint is documented in only 31.1% of referral letters which is significantly lower than studies done in Ethiopia(12),Nigeria (17) and Saudi Arabia(8).The history of present illness is documented in 70.3% which is lower than a study done in Ethiopia(12) but higher than that of Nigerian(17) and Saudi Arabian(14) studies. Only 30.3% of referral letters in this study contain the documentation of physical findings which is lower than studies done in Nigeria(17) and Saudi Arabia(8,14). Similarly, in this study the documentation of some of the clinical findings vital for patient management are missing. Only 19.4% contain all vital signs and 15.3% contain partial vital signs. 41.5% contain results of basic investigation. None of the referral letters contain history of past allergies. The documentation of pre-referral treatment in this study is 43.4%, which is similar to studies done in Ethiopia(12), Nigeria(17), Saudi Arabia(14) but higher than the Manchester(9) study.

Contrary to what was found in other studies, the documentation of some components of the referral letters is significantly higher. 94.3% of the referral letters in this study contain the documentation of the patients working diagnosis, which is higher than studies done in Nigeria(17), Saudi Arabia(14) and Manchester(9).The reason for referral is documented in 93.8% referral letters which is higher than studies done in South Arica(11), Nigeria(17), Saudi Arabia(8). The majority of referrals (82%) are made for lack of service such as lack of specialists, lack of diagnostic and therapeutic facilities.

More than Ninety six percent of the referral letters contain the referring unit but 73.8% contain the receiving unit (hospital).More than quarter 26.2%(n=265) of the referral letters didn't contain the name of the receiving unit (hospital), of which more than half 14.1% (n=143) wrote to any hospital. The FDRE Ministry of Health referral guideline explicitly states Patients should not be referred without prior communication with a receiving unit.(1) The finding in this study shows around 1 in 7 patients were sent to any hospital without communication causing patient discomfort and dissatisfaction.

In this study the documentation of the date of referral (90.8%) is higher when compared with the time of referral (31.3%).

The findings of documentation of the referring physician information in this study show 95.5% of the referral letters contain signature, 61.2% contain the name of the referring clinician. 46.2% mentioned the qualification of the referring physician of which 69.9% were general practitioners and 21.6% were registered nurses, these findings are similar to a study done in Nigeria(17). About 59%(n=594) of the referral papers didn't contain the qualification of the referring clinician. This finding is higher than the Nigerian study(17. The reason may be lack of space for writing qualification on all of the referral papers studied.

In this study, the legibility of referral letters is 87.8% which is higher than studies done in South Africa(11) and Saudi Arabia(14).

The results of this study as reflected by the quality of the referral letters show that communication between the primary care physicians and specialists in hospitals is poor. The lack of basic clinical information such as chief complaints, findings on clinical examination, and the like in the referral letter, is worrying. It seems regrettable that a significant proportion, about **12.2%** of referral letters were not legible. Hardly any benefit can be derived from letters or reports that are illegible. Such letters will be ignored and new information about the patient's problem will be sought and workup done resulting in unnecessary waste of resources and time of both the PHC physician and the specialists in hospitals.

CHAPTER SEVEN
CONCLUSION AND RECOMMENDATION

In conclusion, the quality of referral based on quality of referral letters is poor and needs to be improved. This can be achieved by making the PHC physicians and specialists in hospitals aware of the problem, and understand their role in the process. There is a variety of reasons for incompleteness and the inferior quality of referral letters. Without this information from the primary health care doctors, the hospital consultants glean very little information which in turn affects the quality of patient care.

The standard of referral letters needs improving and furthermore that treating practitioners must ensure to take a detailed patient medical history rather than relying on referral information. 'Quality' can also be applied to patient care and insufficient medical information in the referral letter can have an impact on the 'quality' and safety of care. Patient safety can be compromised if the referral does not provide sufficient information to make an assessment of the treatment urgency or need. A completed accurate referral will provide timely assessment of the patient's needs. For the referral to be an effective communication tool, it must convey all relevant clinical details so an informed decision can be made. An efficient referral means there is no duplication of processes and time wasted, less time the patient needs to tell their story repeatedly and increased patient satisfaction. A well written clear and concise referral provides an equitable approach as patient care is not comprised due to vital information being omitted. Being patient centered means the referral letter is responsive and respectful to individual patient needs.

From this study the referral forms are not standardized, some facilities used sub-standard referral forms, some used blank papers and some used prescription papers. Although using standardized referral forms did not guarantee good quality of the contents of the letters and reports. The problem faced may reflect the attitude of the physicians rather than their knowledge about the components of a standard referral letter or feedback report form.

RECOMMENDATION

There appears to be no 'gold standard' on what components comprise a complete referral letter to ensure patient quality and safety. The FMOH provide record keeping guidelines which set the standard for what is to be recorded in the patient records which includes referral information to and from other practitioners. This body could define the expectations of a referral letter to provide a baseline for consistency at a national level. Obviously, this would not ensure compliance but, at best, provide a minimum standard which would be complimented by guidelines, checklists or proformas at a local level.

- Standardization of the referral forms is a vital component and important recommendation
- It is strongly recommended that primary health care doctors should be trained to write proper referral letters; Specialists of tertiary care facilities should write feedback letters to primary and secondary care facilities.
- electronic media e.g. e-mail and internet should be used for the exchange of referral letters and feedback reports.
- The implementation of the quality assurance program on referral will improve the situation and is highly recommended

Limitations of the Study

Lack of literatures related to the study in Ethiopian set up was the major limitation.

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Name of the institution.....
Type of the institution.....
Name of the reviewer.....
Date.....

Table 1: Table showing the scoring system for the assessment of the quality of referral papers

Characteristics	**Score**	
Patient's Name	Not documented=0	Documented=1
Patient's Age	Not documented=0	Documented=1
Patient's Sex	Not documented=0	Documented=1
Patient Address	Not documented=0	Documented=1
Medical Record Number(MRN)	Not documented=0	Documented=1
Name of Referring Unit	Not documented=0	Documented=1
Name of Receiving Unit	Not documented=0	Documented=1
Specialty to which the patient was referred	Not specified=0	Specified=1
Name of the referring physician	Not mentioned=0 or mentioned but not clear=0	Mentioned and clear=1
Profession/ Qualification of referring physician	Not documented=0	Documented=1
Signature of Referring physician	Not documented=0	Documented=1
Date of referral	Not documented=0	Documented=1
Time of referral	Not documented=0	Documented=1
Chief compliant and duration	Not documented=0	Documented=1
History of present illness	Not documented=0	Documented=1
Physical examination findings	Not documented=0	Documented=1
Vital signs	Not documented=0	Present and partial=1, Present and complete=2
Diagnosis	Not mentioned=0 or mentioned but not clear=0	Mentioned and clear=1

Results of investigation	Not mentioned=0	Mentioned=1
Treatment given	Not mentioned=0	Mentioned=1
Current Medication	Not mentioned=0	Mentioned=1
Known Allergies	Not mentioned=0	Mentioned=1
Reason for referral	Not specified=0	Specified=1
Legibility of writing	Not legible=0	Legible=1
	Total score	**=26**