SCHOOL OF PUBLIC HEALTH

COLLEGE OF HEALTH SCIENCES

UNIVERSITY OF GHANA, LEGON

QUALITY OF MEDICAL REFERRALS TO THE GA WEST MUNICIPAL HOSPITAL-AMASAMAN

BY

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JULY, 2019

DECLARATION

I hereby declare that excluding precise references which have been duly acknowledged, this submission is my own work towards my MPH dissertation and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University or elsewhere.

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(Supervisor)

DEDICATION

I dedicate this work to my wife Mrs Barbara Maame Akua Brago Yeboah and my children, Nhyira Brako Duah-Kuranchie and Aseda Tiwaa Duah-Kuranchie for their support and prayers in my pursuit of higher education.

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ABSTRACT

Introduction: Medical referral system is a vital and critical aspect of patient care from a primary health care professional to the tertiary care provider or specialist. Referral letters have become the most common means by which health care providers communicate with each other on patient information transfer.

Objectives: The aim of this research is to determine the quality and appropriateness of medical referrals to the Ga West municipal hospital, Amasaman.

Methods: This research is a cross sectional study on referral letters presented by patients to the Ga West municipal hospital, Amasaman. In all 163 referrals were assessed, these were referrals the hospital recorded from January 2018 to December 2018. A fifteen (15) item question was used to assess the adequacy of information contained in the referral letter. The letters were also evaluated with a five question item to determine their appropriateness. The folders of the referred cases were also reviewed for evidence of feedback to the referring facilities.

Results: Out of the 163 letters presented at the facility, only 38.9% had adequate information contained in them. 45.66% of the written referrals were appropriately referred. The rate of referrals rose across the different quarters of the year. The first quarter recorded 31.9 per 10,000 patient inflow, 41.3(second quarter), 77.3(third quarter) and the last quarter (80.7). None of the folders contained feed back to the referring facilities, indicating a zero referral feedback

Conclusion: Overall rating of the referral letters showed that, majority of the referrals to the Ga West municipal hospital did not meet the recommended criteria. Poor referral letters and zero feedback in the referral process have a potential of affecting patient treatment outcome. It is therefore recommended that, GHS and its stakeholders should retrain its clinical staff on how to

write good referral letters and also provide feedback to the referring facilities for proper management of patient.

Keywords: Referrals, rate, quality, appropriateness, feedback, Amasaman, Ghana

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LIST OF ABBREVIATION

CHPS – Community Based Health Planning and Services

ERC – Ethics Review Committee

GHS – Ghana Health Service

G.P – General Practitioner

GWMH – Ga West Municipal Hospital

GSS – Ghana Statistical Service

MOH – Ministry of Health

OPD – Out Patient Department

SPH – School of Public Health

WHO – World Health Organization

CHAPTER ONE

INTRODUCTION

1.1 Background

Medical referral is the process of transferring a patient from a primary care professional to a secondary or tertiary physician for the purpose of continuity of care (Abbott et al, 2002). Medical referrals are conducted in order for patients to obtain advice on their diagnosis and management of their disease conditions, obtain specialized procedures when therapeutic and investigative options have been exhausted in primary care settings and more specialized care is required. Furthermore, patients are referred in order to obtain a second opinion (Albari et al, 2005). Referrals have been reported to have implications on the patients, the health care system as well as health care costs. There is substantial evidence that some patients are referred inappropriately which may put pressure on the scarce resource of the health sector, which could have been channelled into the delivery of other services. In addition, there is also evidences of poor communication at the time of referral (Blundell, Clarke, & Mays, 2010)

Thus, communicating patient information at the time of referral is essential for high quality consultation and safe patient care. The primary responsibility of a physician is to promote the best interest of the patient. Patient care is dependent on the physician expert judgement, clinical knowledge and skills (Awoonor-Williams et al, 2015). The medical information available to the primary care physician provided the enabling environment to

make appropriate judgement or decision prior to referral of the patient. The timing of referrals and its appropriateness is essential for proper treatment of the patient.

In health care settings, appropriateness refers to the ability for an individual to benefit from health. Appropriateness is influenced by definitions of health care and benefits which are contextual in nature and may vary between health systems. However, common definitions of benefits with respect to appropriateness in health care settings include health gain, reduction in harmful sequel as well as improvement in organ function (Blundell et al., 2010).

Effective communication between the two levels of referral is key in the efficient management of the patient. Adequate information should be provided to aid in the complete management of the patient. The referral letter should contain all the vital and necessary information needed by the receiving physician for optimum patient care (Levin, 2000)

Strategies for improving communication of referral information have been proposed which include specialist appointment from the referring physician. Specialists who receive timely patient information have been reported to provide optimal care in two-folds more, compared to their counterparts who do not. (Agency for Healthcare Research and Quality, 2008)

Healthcare in general in most part of the continent dwell on the three (3) stage approach in medical referral; primary, secondary and tertiary. In Ghana, the primary care system includes the CHPS compound, health centres and district hospitals. The secondary stage includes the regional hospitals while the tertiary comprises of the teaching hospitals. The

gatekeeper system came into existence in 2012 due to the inconsistency in the referral process (MOH referral policy, 2012). Gatekeeping in health care refers to the role primary care provider's play in authorizing access to specialized care, diagnostic tests as well as hospital care. This system was developed as an antidote for shortage of specialists and to control healthcare spending. The major role of gatekeepers is to ensure that patients are referred to see specialists only for conditions that cannot be managed by gatekeepers. Thus, gatekeepers refer patients to specialists which saves these specialists time for complex cases (Greenfield, 2016) This policy puts in place strategies that would make patient transfer from the primary caregiver to the specialist a smooth process. It also addresses the sporadic episodes of no bed syndrome which came as a result of inappropriate referrals (miscommunication) between health care providers. The referral system in Ghana demands that patients first access primary health care and then be referred to appropriate levels when necessary (Ministry of Health, 2012).

The demand for specialist care normally outweighs the supply and therefore there is the need to effectively manage the referral process. Feedback is a tool which helps to improve the care of patients but this essential component of the referral system is often lacking in the Ghanaian health and referral practices.

1.2 Problem statement

The referral process is one of the essential components in management of patient, from a primary care provider to a specialist or tertiary physician. Primary health care is commonly used as the doorstep to bring health care to the greater number of the

population particularly in the rural areas (Griffin, Nate, Rivard, Christianson, & Dusek, 2016). Efforts aimed at strengthening the referral system endeavour to comprehensively manage clients' health needs by using resources beyond those available where they access care. The process of transmitting patient information from the primary care provider to the specialist should follow standard protocol for a smooth transfer. Often times, information transfer is lacking, and the receiving physician does not receive vital information on the referred patient to make sound judgement on the patient's condition. All fields of the referral letter need to be completed to provide a better platform for the receiving physician to better manage the patient (Bakry et al, 1999).

Poor communication during referrals could result in delay in diagnosis, inadequate follow up, increased costs via the duplication of health services as well erosion of patient confidentiality (Keely, Myers, Dojeiji, & Campbell, 2007).

Thus, good communication between the primary care provider and the specialist in the referral process does not only facilitate timely access to care for patients but can also be satisfactory to the physicians' as they consult each other about how best to address the patient's needs (Royal college of physician and surgeons of Canada, 2009).

Feedback provides opportunity for physicians to exchange ideas. Patient feedback helps providers improve the quality of care, identify gaps in care and decrease patient engagement. It also creates an opportunity for practitioners to share experience; this in turn, helps to reduce inappropriate referral (Kinchen et al, 2000). In the Ga West Municipal Hospital, two departments of the hospital receive an estimated forty (40) referrals per month (GWMH OPD records 2018). The MOH referral guideline is place to

improve the quality of medical referrals but little has been done to make sure the policy really works. It is therefore imperative for the quality of referrals made to the hospital be assessed. It is in this vain that this study seeks to highlight inadequacies in the medical referral system at the hospital and make recommendations to strengthen and improve the medical referral system at the hospital.

1.3 Justification

Medical referral is a communication tool by which physicians communicate with each other on what has been done for a referred client and what needs to be done. Most often, the referral forms are incomplete, which makes continuity of care difficult. Loss of medical information has the consequence of affecting patient care. Where vital information are not provided, it can lead to delayed diagnosis, over dosage of drugs, delay in patient recovery and even contribute to the death of the referred patient(Akbari A et al, 2005). The Ministry of Health (MOH) Ghana has made available a policy document in this regard which needs to be followed by all facilities under the ministry (MOH referral policy, 2012). However, the policy is not followed through (reason only best known to the service providers) contributing to delays in attending to patients, over dosage of patient medications, extra cost to the patient and undue pressure been mounted on the few tertiary facilities . The policy also makes provision for feedback to be given to the referring facility/physician to facilitate continuity of care at the primary level. This portion is mostly not adhered to, making it difficult for the primary level prescriber to know what actually was done for the patient and what needed to have been done before the patient is refereed.

In the light of the above, this study sought to assess quality of medical referrals to a municipal hospital in Greater Accra region of Ghana.

1.4 Research questions

1. What is the quality of medical referrals to the Ga West Municipal Hospital?
2. What are the causes of referral to the facility?
3. What is the rate of referral to the facility?
4. Are the referrals to the Ga West Municipal hospital appropriate?
5. What is the quality of medical referrals
    a. Does the facility give feedback to the referring centers?
    b. Are the information contained in the referral letters adequate?

1.5 General objectives

To assess the quality and appropriateness of medical referrals to the Ga West Municipal Hospital

1.6 Specific objectives

Specifically, the study will address the following objectives

1. To identify the causes of referrals to the facility.
2. To describe referral rate to the facility.
3. To determine the appropriateness of medical referrals.
4. To determine quality of medical referrals-through feedback and adequacy of information.

1.8 Conceptual framework

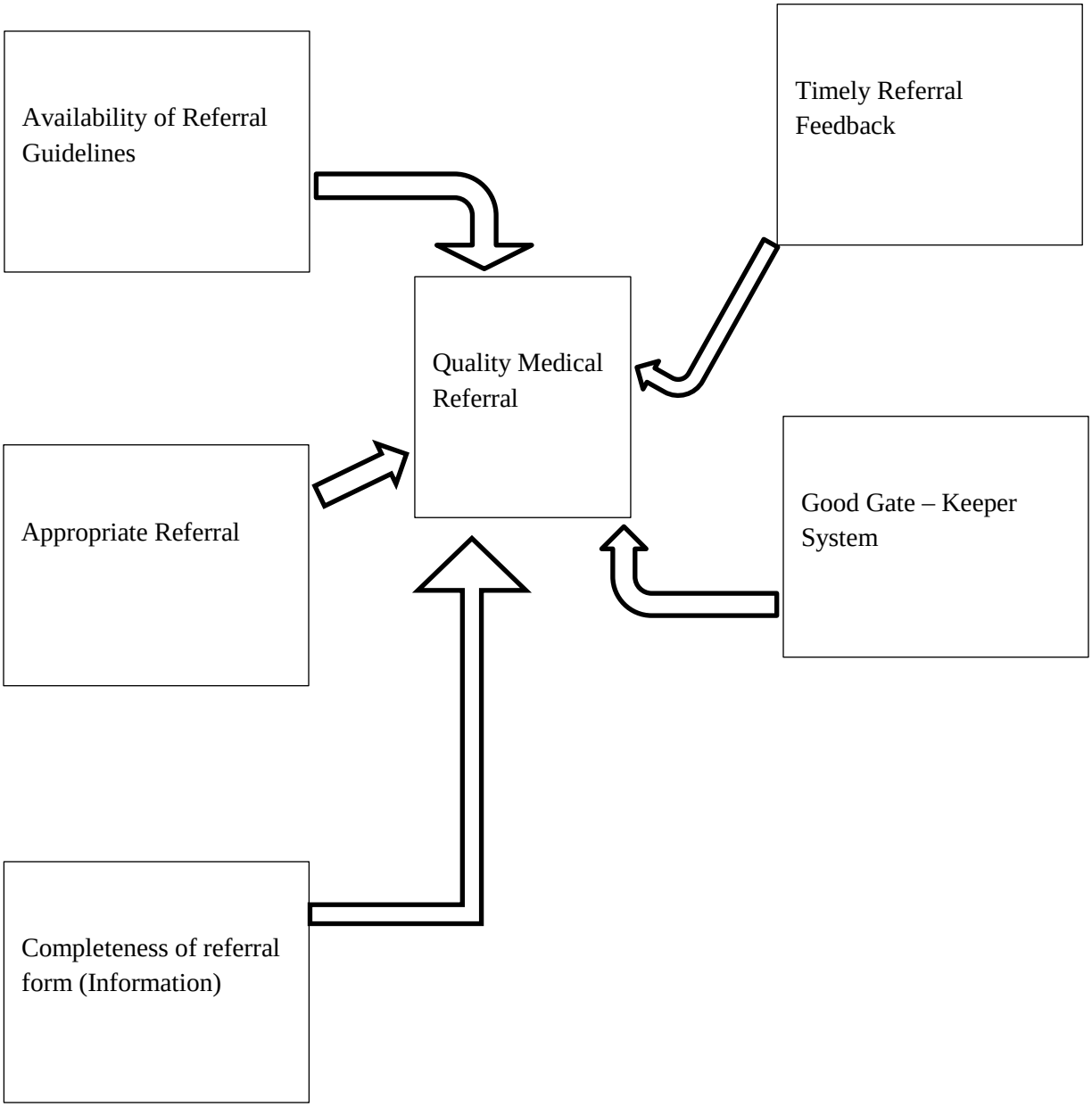

Figure 1 – Conceptual framework

1.8 Narrative to the conceptual framework

Availability of referral guidelines/policy

The presence of a referral policy/guideline helps to guide the referral process. The guideline define all the levels of referral, it helps all health care providers to keep to the gatekeeper system (from the primary level to the secondary through to the tertiary stage) A good referral guideline dictates how the process should be conducted. It brings fairness and equity to the referral process.

Appropriate referrals

The decision to refer should be guided by three main principles: necessity, destination and quality. Necessity answers the question of whether the patient needs to be referred. Has the referring practitioner in the capacity to manage the referred case? Destination deals with the issue of where the patient should be referred to (unit). And quality deals with how the referral was been carried out and whether the needed preparation has been done prior to referral.

Completeness of referral form

All the fields on the referral form should be complete. A complete referral form provides all the needed information for the receiving specialist to make a good decision on the management of the patient. A referral form which lacks detailed information can lead to duplication of treatment, improper or wrong diagnosis and increase patient engagement to the specialist. The completeness of the referral form gives enough information to the receiving physician for optimum care and better patient management.

Good gatekeeper system

A good gatekeeper system ensures a greater utilization of the referral system. Client should be encouraged to first assess the primary care facility before moving up the ladder. Service providers should be well resource to provide all the care at their levels to bring trust to the referral process. The system should always be followed at all time. It helps to reduce the burden and pressure mounted on the few tertiary facilities

Timely referral feedback

Feedback helps the referring practitioner to know what exactly was done for the client and the steps taking to help in continuity of care. A timely feedback allows the primary care provider to better manage similar health conditions when they present at the primary level. Information (feedback) enables the primary care givers better resource themselves for optimum client care. Feedback helps reduce referrals to the other levels of the referral process, since much information would be available for client management. It also allows for clarification of any doubt by the receiving specialist.

Quality of Medical referrals

Adequate information contained in the referral letters enable the receiving physician to better manage the referred patient. It also provides the opportunity for the two physicians to communicate and exchange ideas on the patient care through feedback. Feedback helps the referring physician to know how the patient was managed and what could be done if they have similar conditions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Background

The referral system came into being in 1948 by the British health service with general practitioners as the gate keepers. In order to manage the cost of health care around the world, there was a separation between primary, secondary and the tertiary health system. There was also a call to increase outreach programs in the primary sector in order to reduce the burden on the tertiary facilities (Greener, 2000)

2.2 The referral process in Ghana

The process is defined as the transfer of patient care for the purpose of diagnosis, treatment and investigations. There was inefficiency in the referral process due to lack of standard protocol for referral, nonuse of the referral letter, poor perception of the referral system among others. The Ministry of Health in ensuring the provision of quality health care to all people in the country, developed a policy so that health care providers will refer patients appropriately to ensure continuous health care.(MOH referral policy, 2012).

The policy was instituted by the MOH in partnership with the National Health Insurance Authority, National Health Insurance Scheme, Ghana Health service and donor partners. The policy ensured a safe transfer of patient's information from one level to the other. The transfer of care between health care providers is a critical point where information may get lost and safety may be at risk, poor communication may lead to disruption in the continuity of care, delayed diagnosis, unnecessary testing and complication as well as increased cost for the health care system.

All over the world, the referral system is divided into three categories namely the primary, secondary and tertiary. For effective management of the referral system, one needs to first access the primary care level facility before moving upwards the referral ladder (Aggarwal S et al, 2011). In Ghana, the referral system is poorly managed due to mistrust of patients on the system. The gatekeeper system which permits patient to first access the primary care facilities has been underutilized. This development was putting pressure on the few tertiary facilities available in the country. The ministry of health and stakeholders in the health sector came up with a policy in 2012 to address these challenges in the referral process. The policy outline strategies to address all the hindrances to the referral process (MOH referral policy, 2012). Effective specialist care of patients depends on adequate information flow between primary care providers and tertiary facilities(Forrest et al, 2000). Effective communication reduces unnecessary or premature referrals (lewin, 2000). Poor communication contributes to physician dissatisfaction, delayed, duplication of testing and fragmented care and outcomes (Olivotto. et al, 2002).

In many countries of the world, access to secondary/tertiary health care is controlled by general practitioners (GPs) in a gatekeeper system (Pearson S. D, 1999). When the need for treatment in the

specialist health care services arises within a gatekeeper system, the GP can initiate the transfer of care by referring the patient. Referring a patient for non-emergent causes is usually done by sending a referral letter to the appropriate health care authority. The referral letter serves several important purposes; 1) Signal the need for transfer of care from one level/institution to another, either for admission or outpatient services. 2.

Transfer information about-or trigger the patients' legal rights in terms of priority and acceptable waiting time. 3. Transfer of medical information about the patient to other health care provider for the purpose of specialist's assessment of the patient's need.

If the referral letter does not contain all necessary information to prioritize the patient, it can be rejected or returned, and the specialist is responsible for collecting the missing information in order to make a correct referral-assessment. General Practitioner referral rates are increasing both nationally and internationally and it poses challenges to the referral system. The referral letter is a key component when it comes to patient transferred from primary care provider to a secondary care, or between secondary care institutions. It is used to convey information needed for the consultant specialist to make a correct assessment of the patients need for secondary care treatment and to schedule the correct examinations with the right agency. Lack of detailed

information regarding the patient's symptoms makes diagnosing and management of patient very difficult (Oshikoya K et al., 2016).

Lack of detailed information regarding the patient's symptoms makes the task of prioritizing the patients for the outpatient clinics particularly difficult, as the seriousness of the disease may be unclear to the specialist. This can be challenging, and can make the referral assessment more difficult. It may involve making decisions with reduced confidence, and also often involves extra time spent on the assessment process. It can also lead to incorrect decisions with consequences for the patients' outcome has to a lesser extent been demonstrated. However, there is some evidence indicating that referral letters that include proper diagnosis, and adequate information prevents delay.

2.3 Appropriateness of medical referrals

Appropriateness of medical referrals remains one of the vital indicators for measuring quality of the referral system. A referral ought to be made at the right time, otherwise there will be complications and has the tendency of affecting subsequent management of the patient. Timely referral from the general practitioner to a nephrologist of people with type 2 diabetes helps to prevent complications (Frimat et al, 2004). Appropriateness of healthcare is important when working within any medical specialty. A procedure is deemed appropriate when the expected benefits of the procedure outweigh the risk or inconvenience by an acceptable margin of safety.

by Grimes et al(2011) that whenever time is delayed in the referral system, the consequence is that patients routinely present themselves in the late stages of their disease and do not often receive the full benefits of medical and surgical care thus, making referral process inappropriate because of delays. Gyedu et al., 2015 indicated that the use of structured forms in collecting patient's data reduce the tendency of missing essential information on referrals for surgery. It was argued that the use of such structured forms signifies appropriateness of the referral process (Gyedu et al., 2015). On the contrary, Gyorki et al. (2012) noted that proposing the use of a structured form alone may not be enough to guarantee appropriateness of medical referral process. This indicates that producing appropriate referral services require the fulfillment of a number of indicators. The indicators to tell if a referral is appropriate include: whether the referral was directed to the intended unit/specialist, was the referring facility in the capacity to manage the case was definite diagnosis made before referral, was the information contained in the referral form enough to make a diagnosis and was treatment initiated

before client was referred. A qualitative study done in Ghana on quality improvement in emergency obstetric referrals noted that health care providers are important source of information and local referrals delay (Afari et al., 2014). This indicates variations in the cause of inappropriateness in referral in health institutions that need to be investigated to establish major cause of inappropriateness in the referral system. The most acknowledged method to define appropriate care is the Rand University of California, Delphi panel method. This method consists of developing multiple separate indications or case scenarios for a given procedure, reflecting any combination of scenarios that can affect the benefit and risk associated with the procedure.

2.4 The gate keeper mechanism

Existing studies suggest that there is widespread non-compliance with referral advice on the one hand and by-passing of lower level care on the other. This is often due to poor

perception of the populace on the primary care facilities. (Murray et al, 2006). Such by-pass is often initiated by the user, but sometimes by a lower-level health care provider. When health care at first-contact facilities is perceived as poor, the bypassing of them is widespread, even in the presence of policies. Studies in Africa have shown that 61-82% of users of hospital childbirth facilities are ``self-referrals'' (Akalin & Maine, 1995).

2.5 Quality of medical referrals

Quality of medical referrals is one of the essential indicators that could be used to measure performance in the health system. Quality is often measured in different dimensions. According to Blundell (2010), quality of a referral can be understood as proper timing of referrals. Quality of medical referral is imperative in the health setting as

this brings to light how effective a health system runs but on the contrary, quality of referral remains low in some health settings due to some impediments (Aidoo et al 2014). Cervante et al. (2003) argued that for a successful referral, there must be first and foremost geographical access to referral care facilities. They added that referral services must be accessible, referral staff must be trained to provide quality care services, services must be affordable and the same time, essential drugs, supplies and equipment must be available. In most settings, timing is one of the indicators used to measure quality of referral. Often times, the time between when a patient develops surgical need, presenting to a local health facility for assessment and diagnosis is delayed for reasons such as lack of access to care, unaffordable direct and indirect cost of care and prolonged waiting time between referring and receiving hospitals (Gyedu et al., 2015). A cross sectional study conducted in parts of Kenya on challenges facing quality and implementation of referral systems concluded that poor infrastructure, health information system, capacity of health care workers and financial resources are challenges in the implementation of quality health care system (Amoah et al, 2017). A qualitative study done in the Assin North District of Ghana on quality improvement in emergency obstetric referrals found challenges most notably, recognizing danger signs, alerting receiving health facility, accompanying critically ill patients, documenting referral cases and not obtaining feedback on referral cases as challenges to smooth running of referral services. The cause of these challenges was ascribed to four main factors: transportation, communication, clinical skills and management, and standards of care and monitoring (Afari et al., 2014). Appropriateness of a referral process cannot be underestimated as far as quality is concern. On the contrary, some studies found no associations between the referral rate

and the quality or appropriateness of the referral. To judge the referral quality on the basis of referral rates is thus a very simplified way of looking at referral quality. Several studies have aimed to assess the quality of referrals from primary to secondary care, and those studies have indicated good timing as an appropriate indicator for measuring referral quality (Blundell N et al, 2010).

The appropriateness of referral can also be understood as the quality of the written referral letter. These aspects are closely related, but also have some major differences. A patient can be referred for an appropriate indication through a referral letter of poor quality, or for an inappropriate indication through a referral letter containing all necessary information to make a good assessment of the need for health care (Osinalke et al., 2013). Consequently, the appropriateness of the referral and the quality of the referral letter cannot be treated as the same entity.

They do, however, largely paint the same picture: both nationally and internationally. Information may be missing, both on a general level, e.g. information about current medication, social history and description of the current disease, but also on a more detailed and disease specific.

2.6 Referral feedback

With laid down protocols and adherence to international standards, the receiving physician is mandated to send feedback to the referring physician for continuity of care and clarifications on patient management if possible. But unfortunately, despite the high rate of patient referral and the critical role in the continuity and quality of care, medical literature demonstrates that, general practitioners receive little or no information about

the care their patients received. This does not promote proper and safe patient care (Gagliardi, 2002). A cross sectional study conducted in Pakistan on the effectiveness of patient referral revealed that records of higher-level facilities revealed lack of information and feedback on patient's referral (Siddiqi et al., 2001).

2.7 Conclusion to review

Based on review of relevant literature, it has been discovered that quality of referral process in health institutions form an essential component of service delivery. Literature indicates that quality of referral in health sectors is very essential in resuscitating the critically ill. Regardless, it has been observed that there is a general gap in rendering quality referral services in parts of the world and Ghana is no exception. Quality is a broad concept and can be measured in terms of appropriateness of service delivered, referral feedbacks and time taken to transport a sick patient from one hospital to another. Literature has indicated that the existence of the gap on poor quality referral service is ascribed to wide range of factors stretching from availability of health personnel, communication to transportation. It is worth to note that different authors of similar work found varied factors linked to quality of referral service. In this regard, it is of the essence a similar study be conducted in the capital of Ghana to ascertain factors precluding the existence of quality in our referral systems. Based on reviewed literature, the variables for the study have been found and these includes feedback process, time, communication and transportation.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents detailed description of methods applied in conducting the study. They include study design, description of study site, study population, inclusion and exclusion criteria, sampling methods, study variables, data collection tools and methods, data quality and analysis and ethical consideration or issues.

3.2 Research design

A cross sectional study design was used for this study. Cross sectional studies involve data collection at a defined time.

3.3 Study area

The study was conducted at the Ga West Municipal Hospital (GWMH), Amasaman. The 2018 projected population of Ga West Municipality was estimated to be about 219,788 with an annual growth rate of approximately 3.4% (Ghana Statistical Services, 2014). The municipality shares common boundaries with Ga East and Accra Metropolitan Assembly to the East, Akuapem South to the North and Ga South to the south and West. It occupies a land area of approximately 305.4 sq. km with about 193 communities (GSS, 2014). The hospital provides both preventive and curative health care to neighbouring districts and towns. The hospital receives at least forty (40) referrals a month (hospital OPD records). Most of the referrals the hospital receives come from health facilities within the municipality and beyond. Some of the health facilities that mostly refer to the municipal hospital include: Oduman health centre, Kotoku health centre, Mayera health

centre, Pokuase health centre, St. John's hospital, Obeyeyie medical centre. The categories of health facilities that refer to the municipal hospital include CHPS compounds, Health centres, private health facilities, district hospitals, maternity homes among others.

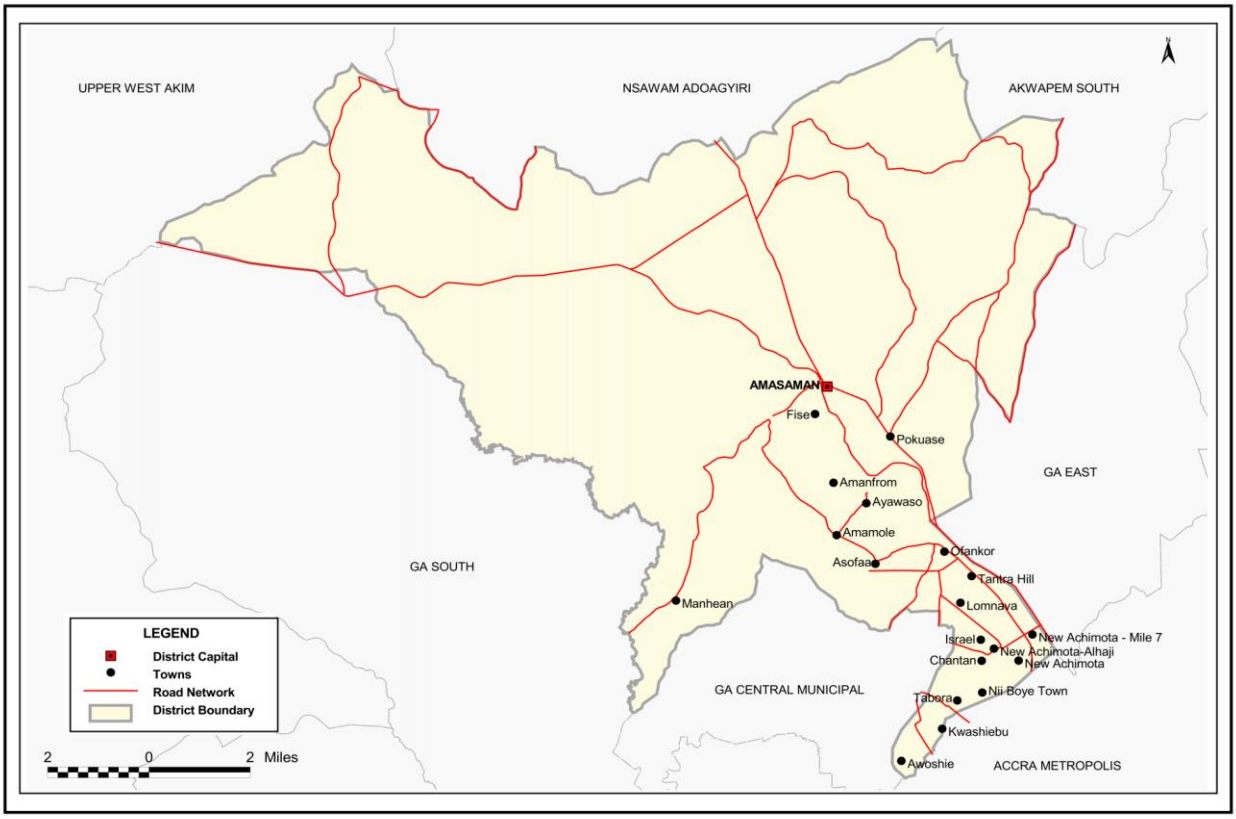

Figure 2: Map of Ga West Municipality (Source: GSS, 2010)

3.4 Study population

The study population consisted all records of medical referrals from other health facilities to the Ga West municipal hospital between January 01, 2018 and 31st December, 2018.

3.5 Sample size determination

Since the study utilized the records available on medical referrals from January 2018-December 2018, sample size was not calculated. Total records available within the stipulated period were used for the study (A total of 163).

3.6 Inclusion criteria

All referrals written by qualified persons (Physician Assistants, Medical Officers, and Nurses) within the stipulated time frame (January 01, 2018 and December 31, 2018) were considered in this study. The emergency and the obstetric and gynaecological units were chosen for the study due to the volume of referrals they receive on daily basis as compare to the other units of the hospital (GWMH records, 2018)

3.7 Exclusion criteria

Referrals written and directed to other department aside the designated departments (emergency and obstetrics/gynaecology unit) were excluded from the study. Similarly, missing records of medical referrals in the patents folder was excluded from the study.

3.8 Study variables

The following were the variables which were studied:

Indication for referral

This variable was extracted from the patients referral form at the hospital. This describes the reason for the patient's referral. Or the health conditions that necessitated the patient referral

Referral feedbacks

Folders of patients who were referred within the stipulated period were reviewed for the presence of feedback to the referring facilities.

Adequate information

The referral letters were analysed for the adequacy of information it contained before a definite diagnosis is made.

Referral rates

The percentage (rate) of patients referred to the facility was determined in relation to the total number of patients that assessed the facility in 2018

Appropriateness of referrals

Appropriateness of referral was assessed by comparing the available protocol to actual referral process. This was done by assessing all the referral letters with the five item questions on appropriateness.

3.9 Data collection instrument

The study used a data extraction tool to collect information on referred patients background characteristics and other important information associated with patient referral such as cause of referral, presence of chief complaints, presence of what is expected of the referral, initial treatment given, presence of relevant clinical findings and the presence of past medical history.

To assess the adequacy of information on referral letters, a data extraction tool was adapted from the College of family physicians of Canada and the Royal College of Physicians and Surgeons of Canada (Francoise J, 2011) as the primary tool for assessing

referrals. The tool include a scale for 15 content and 2 styles items (yes or no); The same tool was also used to determine the overall rating. All referrals with ratings between 13-15 was rated as excellent, 10-12 was rated as very good, 7-9 was rated as good, 4-6 was rated as fair and less than 4 was rated as poor. The content of the 15-item are provided in the appendix.

The appropriateness of the referral was also assessed using a five item question which included the unit the referral was directed to, comprehensiveness of the information in the referral letters, making of a definite diagnosis before referral and determining the ability of the referring facility to manage the cases they referred. Medical records (patient's folder) were reviewed for evidence of feedbacks to the referring physicians.

3.10 Data processing and analysis

The rate of referrals to the facility was estimated in relation to the total patient outflow in 2018. The 163 referral letters were equally distributed among the four medical practitioners and the information they contained were scored by the practitioners.. The relationship between the quality of the referral letters, the percentage of referral letters containing sufficient clinical information, appropriateness of referrals to the municipal hospital and the presence of feedback in the folders of referred cases were determined. The checklist was first coded using STATA. The results was converted into frequencies and percentages of each item studied.

3.11 Quality Control

Six (6) research assistants were trained to assist in data collection. The content of the training included: objective of the study, check list interpretation, hospital entry ethics, confidentiality and censoring of the referral letters. The principal researcher was part of

the team during the entire data gathering process to ensure that the study objective was followed to the latter.

3.12 Pretesting

A prototype of the developed checklist was deployed at the Ga North district hospital in order to assess the tools ability to accurately determine the quality and appropriateness of medical referrals. The site was chosen because it has similar characteristic as the study site.

3.13 Ethical consideration

Ethical issues involved in the study were addressed by doing the following:

3.13.1 Ethical clearance

Ethical clearance was sought from the Ghana Health Service Ethics Review Committee as a requirement to conduct a research in a health facility.(GHS ERC, 2015)

3.13.2 Approval from study area

A letter of introduction from the School of Public Health (SPH) was sent to the District Director of Health Services, Amasaman, to seek permission to collect data from the Ga West Municipal Hospital for the study. A similar letter was sent to the Medical Director of the hospital to permit me access medical records of patients and to have access to the specialists and general medical practitioners of the facility to complete the study.

3.13.3 Potential risks/benefits

The researcher did not encounter any risk.

3.13.4 Privacy/Confidentiality

Information from review of medical records and the views of all the specialists who agreed to take part was kept confidential. Names of patients on the referral form were censored.

3.13.5 Data storage and usage

Information was gathered using a checklist and review of medical records. The information gathered has been kept under lock and key.

3.13.5 Declaration of conflict of interest

The author declared no conflict of interest. This work is for academic purposes.

3.14 Funding information

The entire work was funded by the principal investigator.

CHAPTER FOUR

RESULTS

4.1 Introduction

This chapter presents results from analysis of referral data in 2018 at the Ga West Municipal Hospital. The aim of this study was to determine the quality and appropriateness of medical referrals to the Ga West Municipal hospital, Amasaman. The evaluation of the referral letters were done by four medical practitioners from the Ga West Municipal hospital with my guidance and support from the six (6) research assistants I recruited and trained.

4.2 Background characteristics of patients

Table 1 represents background characteristics of patients referred. The mean age of patients referred was 31.11(±22.26) years. Most of the patients 37 (22.7%) referred were between age group 5-19. The least referred age group 50-59 was 6.8%, Majority of the patients were females 112 (68.7%). At the time of referral, 41 representing 25.2% were insured with health insurance. The rest were non-insured and undocumented insurance status 68 representing (41.7%) and 51 (33.1%) respectively. Most of the facilities referring were health center's 112 (68.7%). The rest were Clinics/Polyclinics 18 (11%), hospitals 14 (8.6%), CHPS 11 (6.7%) and maternity homes 8 (5%).

Table 1: Background characteristics of patient referred.

Mean age(SD)	31.11(±22.26)	
Variable	Frequency	Percentage
Age		
<5	20	12.3
5-19	37	22.7
20-29	31	19.0
30-39	19	11.7
40-49	23	14.1
50-59	11	6.7
≥60	22	13.5
Sex		
Female	112	68.7
Male	51	31.3
NHIS status		
Insured	41	25.2
Non-Insured	68	41.7
Not stated	54	33.1
Referring facility		
Health Centre	112	68.7
CHPS	11	6.7
Clinic/Polyclinic	18	11.0
Hospital	14	8.6
Maternity home	8	5.0

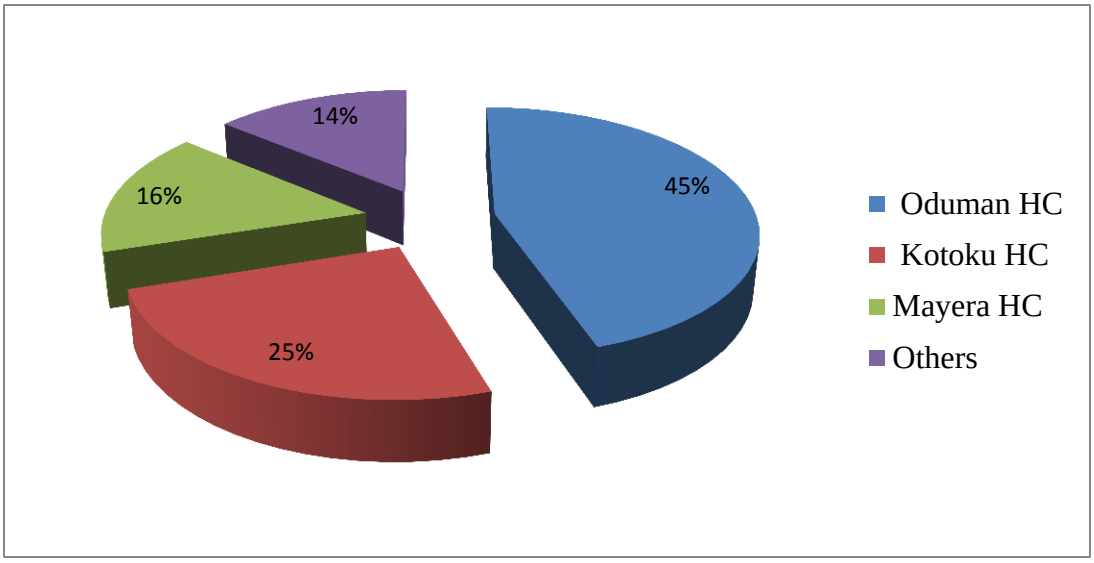

Figure 3: Most referred facilities

Figure 3 represent the top most four facilities that referred to the Ga west municipal hospital. Oduman health centre is the facility (45%) that referred most to the municipal hospital, followed by Kotoku health centre (25%). Mayera health centre (.16%) and the other referring health facilities (14%)

Objective1: Causes of referrals

Figure 4 represent major disease referred to the hospital for 2018. Amidst 163 referrals, most (15.9%) of the cases were hypertension, followed by malaria (both simple and severe) (4.3%) and Anaemia (4.3%). The other causes of referral includes sinusitis, acute asthmatic attack, laceration, diabetes mellitus, pelvic inflammatory disease, snake bite, bleeding uterine fibroids among others accounted for 75.5% of the total referrals.

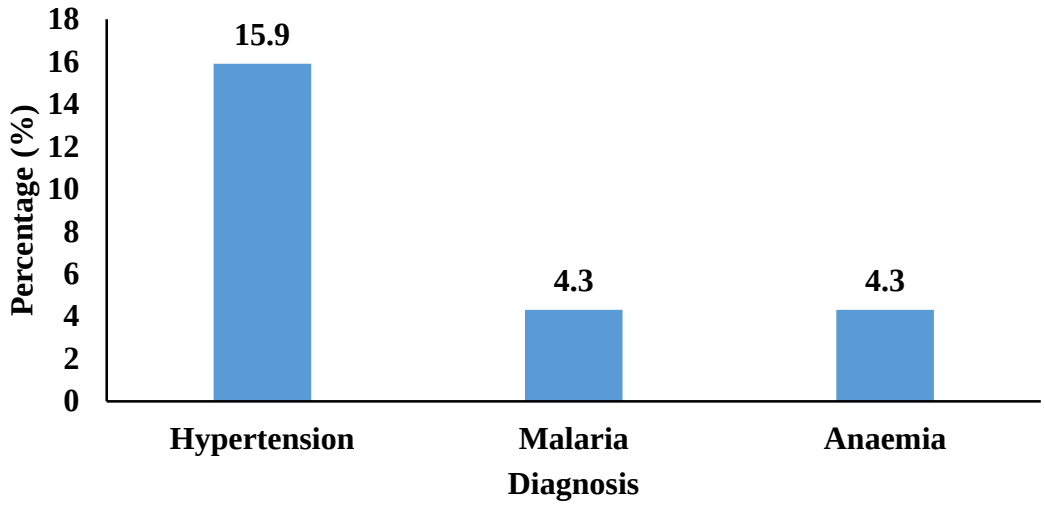

Figure 4: Major diseases referred (Top three)

Objective 2: Rate of referral to facility

Figure 5 represent referral rate per 10000 OPD cases (Cumulative). Referral rate for the first three months (1st Quarter) in 2018 was 31.9 per 10000 OPD cases. This gradually increased to 41.3 per 10000 OPD cases in 2nd Quarter, which further increased to 77.3 per 10000 OPD cases in 3rd Quarter. In the 4th Quarter, OPD referral rate stood at 80.7 per 10000 OPD cases. These referrals explicitly occurred in January 2018 to December 2018. The 2nd and 3rd quarter has the highest number of referrals. A difference of 36 referrals per 10,000 patient outflow were recorded

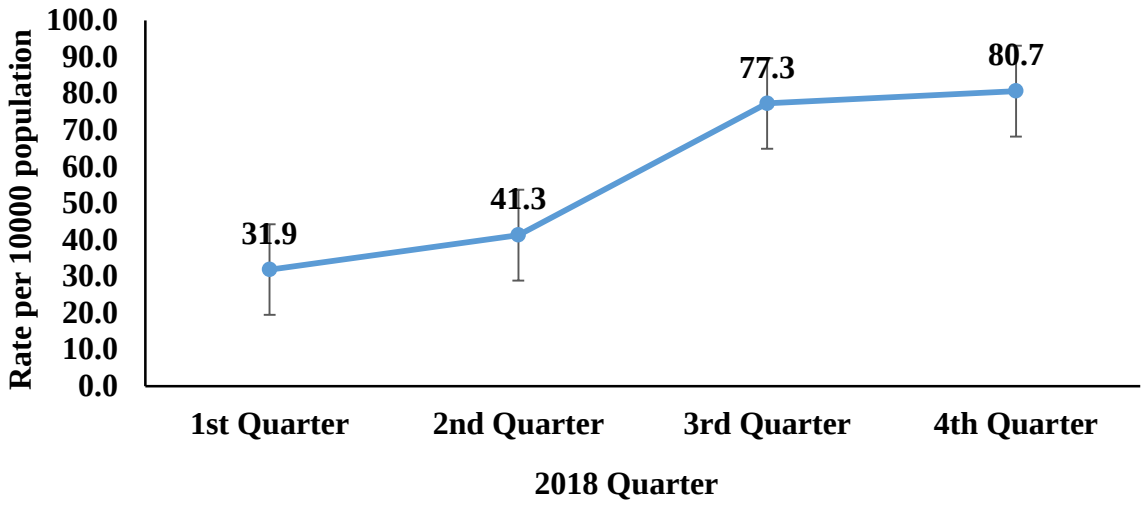

Figure 5: Referral rates

Objective 3: Appropriateness of medical referrals

Figure 6 describes the key variables that address appropriateness of referrals. About 42% of records showed patients were referred to the appropriate unit, 23% had definite diagnosis performed, about 38% of referred cases received initial treatment and around 42% of cases had comprehensive information in the report. Indeed about 74% of cases referred could have been managed at the facility. Thus overall, about 43.9 cases were appropriately referred.

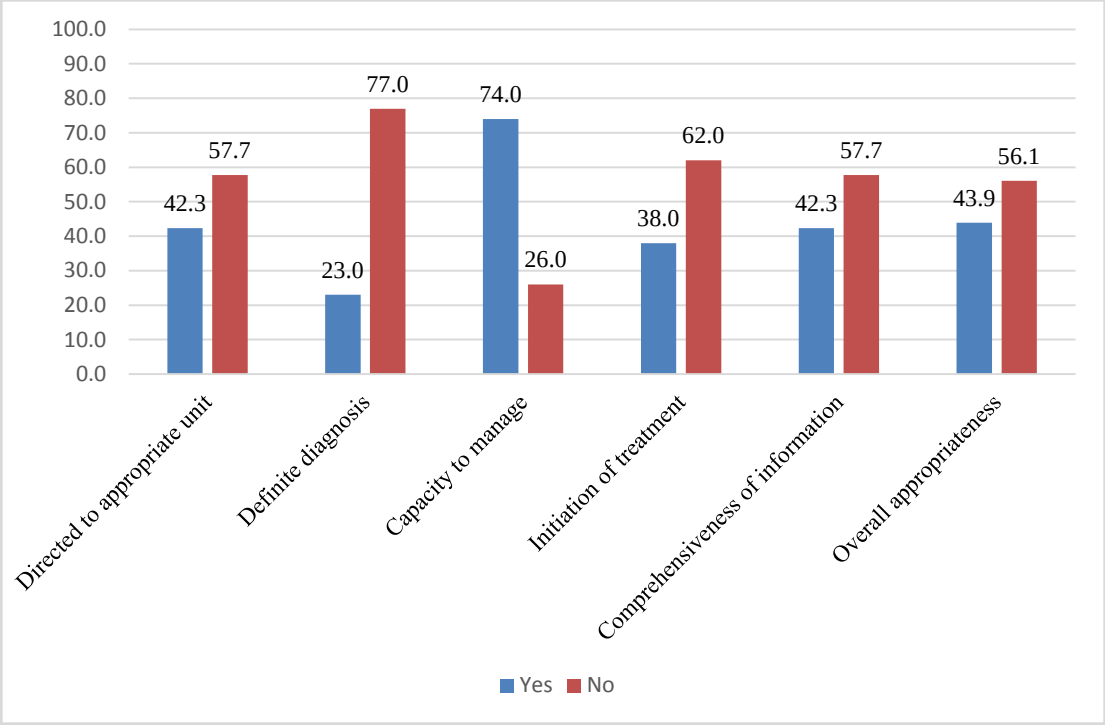

Figure 6: Appropriateness of referrals (%)

Objective 4: Quality of medical referrals

Table 2 represents adequate of information provided in the referral letters with psychosocial been the least information provided and patients demographics been the most

Table 2: Adequate information on referral letters

NO	CONTENT DATA	YES	NO	TOTAL
1	Presence of patients demographics in referral letter	90%	10%	100%
2	Presence of initial statement identifying the reason for the referral	30%	70%	100%
3	Presence of description of chief complaint	45%	55%	100%
4	Presence of description of associated symptoms	33%	67%	100%
5	Presence of description of relevant history	48%	52%	100%
6	Presence of past medical history	10%	90%	100%
7	Presence of past surgical history	7%	93%	100%
8	Presence of relevant psycho-social history	1%	99%	100%
9	Presence of current medical history	5%	95%	100%
10	Presence of information on allergies	3%	97%	100%
11	Presence of relevant clinical findings	18%	82%	100%
12	Presence of results of investigations to date	34%	66%	100%
13	Presence of outline of management to date	44%	66%	100%
14	Presence of provisional diagnosis/clinical impression	52%	48%	100%
15	Presence of statement of what is expected of the referral	22%	78%	100%

Feedback

All the folders of the 163 referred cases were reviewed for the presence of feedback letters to the referring facilities by the municipal hospital but none was recorded. This indicates a zero feedback to the referring facilities.

Table 3 represents the overall rating of the referral letters. 10 out of the 163 letters were rated as excellent whiles 80 out of the 163 were rated as poor.

Table 3: Overall rating of referral letters

RATING	NUMBER OF LETTERS
Excellent	10
Very good	20
Good	30
Fair	23
Poor	80

CHAPTER FIVE

DISCUSION

Medical referral is an important aspect in health care delivery that ensures that patients who require more intensive and advance care are transferred from a primary health care professional to a secondary or tertiary physician for the purpose of continuity of care and believed to result in favorable outcome of illnesses (Medical Net 2019). There are various conditions and circumstances that may require medical referral to the secondary or tertiary level. The results of this study showed that, the major causes of medical referral to the Ga West Municipal Hospital were hypertension (15.9), malaria (both simple and severe) (4.3%) and anemia (4.3%). A cross sectional descriptive study carried out in Northwest of Nigeria revealed that, diarrhea was the most common reason for referral (34%) followed by convulsion (10.4%), difficulty in breathing (8.5%) and surgery (8.5%) (Musa, & Ejembi, 2004). Another cross sectional study carried out in rural Uganda also showed that, the common cases that were referred were fever/malaria in 111 (82%) cases, cough in 61 (45%) cases, and fast/difficult breathing in 25 (18%) cases. The differences in the reported referred cases could be possibly due to environmental and epidemiological difference at various places.

The reason for the major referral of hypertension, malaria and anemia could be due to high prevalence of these conditions in the study area which requires advance care and management and use of appropriate equipment and logistics as well as the professional expertise. Also, the health policy in Ghana regarding the treatment guidelines requires that, the primary level provide first aid to conditions such as malaria and anemia and then refer the patient to the next level for continuity of treatment and management.

Referrals to the municipal hospital are mostly from health centres, CHPS compounds, maternity homes and few district hospitals. In this study, the most referring health facilities to the municipal hospital are Oduman health centre (45%), Kotoku health centre (25%), and Mayera health centre (16%).

Information provided in the referral letters was inadequate to make a definite diagnosis on the patient. This can lead to gap in treatment and duplication of medicals. Adequate patient information is essential for proper management of the patient.

The referral rate as reported in this study indicates that, for the first three months (1st Quarter) in 2018 the referral rate was 31.9 per 10000 OPD cases. This gradually increased to 41.3 per 10000 OPD cases in 2nd Quarter, which further increased to 77.3 per 10000 OPD cases in 3rd Quarter. In the 4th Quarter, OPD referral rate stands at 80.7 per 10000 OPD cases.. The reason for the increased referral at the hospital could be due to inappropriate diagnosis, lack of equipment and logistics to diagnose, lack of expertise and increase in the number of OPD cases at the primary level which required referral to the next level. The findings of a cross sectional study carried out revealed that, 35% of cases seen in the district hospital were self-referred due to several institutional factors such as unavailability of medication at the pharmacy (98%); quality of care at the facility (93%); waiting time at facility (92%); services provided (90%); and attitude of healthcare workers (87%), were ranked as the main drivers of self-referral.

Feedback referral letters are very important in health care delivery which indicates some level of communication. When feedback is not given, it shows poor communication which can lead to misinformation and poor patient care. And the facility that referred the case to the next level learns (medical education) and gets to continue care and

management of the cases they referred (Nestel, & Kidd, 2004). With high prevalence of complex chronic conditions and the fragmentation of healthcare delivery that comes with medical specialization, communication and coordination between primary care providers and specialists becomes increasingly important. Coordinating care and ensuring continuity of care are important elements of patient-centered primary care. Referrals made by primary care providers, arranging specialty consultation and co-management of complex conditions, are an important element of this communication and coordination (Macri, 2013). Most patients that are referred reside in the communities where they easily get access to the primary facilities that referred them. Referral letter back to that primary facility ensure continuity of care and management. The findings from this present study shows that, the Ga West Municipal hospital had zero feedback letters which implies that they did not return feedback referral letters upon receiving referred cases. The implication of zero feedback in medical care is that the facility that referred the case will not have the opportunity to know what was done for the patient and what should be done incase similar cases are reported at the primary level.. An effective referral system is an integral component of a successful healthcare system as it ensures continuity of patient care. A well-functioning referral system ensures that patients are managed at appropriate levels, preventing over burdening at higher level facilities (Hensher, Price, & Adomakoh, 2006). Referral letters as used as a means of communication needs to be clear and appropriate. Good communication is essential to a safe and high quality consultation and referral process. Written communication, in the form of consultation of referral letter and reply letters is the most common and sometimes sole means by which doctors exchange information pertinent to patient care. Poor communication in the referral process can

have adverse effects on patient care by delaying diagnosis, leading to the repetition of investigations and increasing polypharmacy which might increase health cost (Franscios, 2011).

The result of this study indicates that, most of the referral letters were not appropriately addressed to the right department (57.7%) and had inappropriate diagnosis (4.9%). Overall, majority (85.9%) of the referrals letters were inappropriate. Delay in getting the referral letters to the appropriate department and wrong diagnosis can delay the whole process of care and this can be detrimental to the health of the patients. In a high-quality referral, which is an information-intensive process, important components of demographic and clinical information such as reasons for referral, provisional diagnosis, previous diseases and treatments, prescriptions, habits, and drug sensitivities coupled with clinical questions are transferred to other health care providers. Quality referral letter is therefore essential in health care delivery.

5.1 Study limitations

The study was limited by the following factors:

- The use of only two departments out of the lot may have also influence the outcome of the research.
- All departments could have been studied to have a definite statement on the referral sent to the Ga West municipal hospital but due to lack of time, the study was limited to only two departments.

  In spite of the limitations, the validity and reliability of the study was not compromised.

CHAPTER SIX

CONCLUSION AND RECOMMENDATIONS

6.1 Conclusion

The results of this study showed that, the major causes of medical referral to the Ga West Municipal Hospital were hypertension (15.9), malaria (both simple and severe) (4.3%) and anemia (4.3%). The three top most referring facilities to the municipal hospital are Oduman health centre (45%), Kotoku health centre (25%) and Mayera health centre (16%). Most of the information in the referral letters needed to help in the management of the patient was not provided. These include: past medical and surgical history, history on allergy, initial treatment given and relevant clinical findings. The rate of referral increased across the quarters of the year (2018). The Ga West Municipal hospital had zero feedback letters which implies that they did not give feedback to any of the facilities that referred to the municipal hospital. The implication of zero feedback in medical care is that, the facility that referred the case will not have the opportunity to know what was done for the patient and what could be done if they are faced with similar conditions. Most of the referral letters were not appropriately address to the right department (57.7%) and indefinite diagnosis represent (77%) with poor quality of referral letters (69.3%). The above factors would lead to delay in diagnosis of patient, duplication of treatment and would also add extra cost to the patient treatment.

6.2 Recommendations

1. The Ghana Health Services and other stakeholders should train the health care professional at all levels (primary, secondary and tertiary levels) on how to write and reply medical referral letters.
2. The Ghana Health Services and other stakeholders should institute an evaluation and monitoring system to check referral and referral feedbacks at all levels
3. The Ghana Health Services and other stakeholders should equip health care professional at the primary level with adequate skills and logistics to manage some of the referred cases at the primary level to reduce the burden on the few tertiary facilities.
4. As professional courtesy demand, specialists need to send feedback to the referring physician for continuity of care of the patient since ultimately, the patient will go back to their general practitioners.

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APPENDICES

APPENDIX A – DATA EXTRACTION TOOL

PATIENT DEMOGRAPHICS

ID	Sex	Age	Referring clinic	Diagnosis	Presenting complaints	Exam. findings	Treatment given	NIHS status

INFORMATION ADEQUACY

	ITEMS	YES	NO
1	Presence of patient demographics in referral letter		
2	Presence of initial statement identifying the reason for the referral		
3	Presence of description of chief complaint		
4	Presence of description of associated symptoms		
5	Presence of description of relevant history		
6	Presence of past medical history		
7	Presence of past surgical history		
8	Presence of relevant psycho-social history		
9	Presence of current medical history		
10	Presence of information on allergies		
11	Presence of relevant clinical findings		
12	Presence of results of investigation to date		
13	Presence of outline of management to date		
14	Presence of provisional diagnosis/clinical impression		
15	Presence of statement of what is expected of the referral.		

APPROPRIATENESS OF REFERRALS

	ITEM	YES	NO
1	Was the referral directed to the intended specialist?		
2	Was the referring facility not in the capacity to manage the referred case?		
3	Was a definite diagnosis made before referral?		
4	Was the information contained in the referral letter comprehensive enough to make definite diagnosis		
5	Was treatment initiated before the patient was referred?		

Date of letter ……..

Description of letter directed to ……..

APPENDIX B - OVERALL REFERRAL RATING

RATING	NUMBER OF LETTERS
Excellent	
Very good	
Good	
Fair	
Poor	

37

GHANA HEALTH SERVICE FACILI TY REFERRAL FORM

PATIENT REG NO.....

DAY	MONTH	YEAR
22	05	2018

HEALTH FACILITY INFORMATION

NAME AND ADDRESS OF HEALTH FACILITY: POKUASE HEATH CENTER

NAME AND ADDRESS OF HEALTH FACILITY REFERRED TO: AMASAMAN HOSPITAL

TIME REFFERED 12:4pm TIME OF DEPARTURE (IF EMERGENCY) 12:4pm

PATIENT/CLIENT INFORMATION

SURNAME MUSTAPHA OTHERNAMES FUSEINI

SEX: MALE ✓ FEMALE

DATE OF BIRTH: DAY 17 MONTH 08 YEAR 2015

AGE 3yrs

INSURANCE STATUSE: UNINSURED INSURED ✓

ID NO. 12530070

NAME AND ADDRESS OF CONTACT PERSON/RELATIVE KUMU ADAMU

TELEPHONE NO OF CONTACT PERSON: 0548207416

PATIENT/CLIENT INFORMATION

PRESENTING COMPLAINT(S) breathing chest enlargement, difficulty in

EXAMINATION FINDINGS

TEMPERATURE	PULSE	RESPIRATORY RATE	BP	WT
36.0°	120bpm	32cpm		12kg

RESULTS OF INVESTIGATION CARRIES OUT

NIL

DIAGNOSIS(ES) ? chest enlargement

MEDICAL MANAGEMENT/TREATMENT GIVEN

HOME

REASON FOR REFERRAL AND COMMENT FOR NEXT LEVEL

FOR FURTHER MANAGEMENT

NAME OF OFFICER REFERING OTI-BOADI EZEKIEL

POSITION NURSING OFFICER

SIGNATURE	DATE	CONTACT(S) OF OFFICER REFERING
	22/05/18	

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GHANA HEALTH SERVICE FACILITY REFERRAL FORM

PATIENT REG NO..........

DAY MONTH YEAR
14 5 2018

HEALTH FACILITY INFORMATION

NAME AND ADDRESS OF HEALTH FACILITY: Pokuase Health Centre Pokuase

NAME AND ADDRESS OF HEALTH FACILITY REFERRED TO: Ga North; Amasaman.

TIME REFFERED .... TIME OF DEPARTURE (IF EMERGENCY)...

PATIENT/CLIENT INFORMATION

SURNAME		OTHERNAMES	
SEX: MALE / FEMALE ✓	DATE OF BIRTH (DAY / MONTH / YEAR)	AGE: 40yrs	INSURANCE STATUS: UNINSURED ✓ / INSURED / ID NO..........

NAME AND ADDRESS OF CONTACT PERSON/RELATIVE

TELEPHONE NO OF CONTACT PERSON: Mawuli Alijah (0267 68857)

PATIENT/CLIENT INFORMATION

PRESENTING COMPLAINT(S): Supra ... pelvic pain, ... pain, fever.

EXAMINATION FINDINGS: ... acutely ill looking, febrile, ...
Abdominal exam: ... tenderness.

TEMPERATURE	PULSE	RESPIRATORY RATE	BP	WT
35.6°C			140/80mmHg	55kg

RESULTS OF INVESTIGATION CARRIES OUT: Abdomino – Pelvic USG – Rt Hemorrhagic Ovarian Cyst

DIAGNOSIS(ES): ?? Acute Rt Sided Salpingitis, Rt Ovarian Cyst

MEDICAL MANAGEMENT/TREATMENT GIVEN: – Tab Cefuroxime 500mg bd ×5 – Tab Diclo ...

– Tab Metronidazole 400mg tid ×5 –

REASON FOR REFERRAL AND COMMENT FOR NEXT LEVEL: Referred to see a Gynaecologist

NAME OF OFFICER REFERING

POSITION

DURAY EMMANUEL
Snr. Physician Assist. I/C (Medical)
POKUASE HEALTH CENTRE

SIGNATURE DATE CONTACT(S) OF OFFICER REFERING

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GHANA HEALTH SERVICE FACILITY REFERRAL FORM

PATIENT REG NO.....

SERIAL 0086480

DAY	MONTH	YEAR

HEALTH FACILITY INFORMATION

NAME & ADDRESS OF REFERRING HEALTH FACILITY: Kebele Health Centre

NAME & ADDRESS OF HEALTH FACILITY REFERRED TO: Municipal Gen'l Hospital

TIME REFERRED: 7:40pm TIME OF DEPARTURE (IF EMERGENCY) 7:45pm

PATIENT/CLIENT INFORMATION

SURNAME: OTHER NAMES:

SEX: MALE ✓ FEMALE

DATE OF BIRTH: DAY MONTH YEAR

AGE: 1 yr

INSURANCE STATUS: UNINSURED ☐ INSURED ☐ ID NO: .....

NAME AND ADDRESS OF CONTACT PERSON/RELATIVE:

TELEPHONE NO. OF CONTACT PERSON:

PATIENT/CLIENT CLINIC DETAILS

PRESENTING COMPLAINT(S):

EXAMINATION FINDINGS:

TEMPERATURE: 37.5	PULSE:	RESPIRATORY RATE:	BP:	WT: 10

RESULTS OF INVESTIGATIONS CARRIED OUT: BSF – mps (+++)

DIAGNOSIS(ES): Severe Malaria

MEDICAL MANAGEMENT/TREATMENT GIVEN: Inj. Artemether 3cmy stat.

REASON FOR REFERRAL AND COMMENT FOR NEXT LEVEL: For further Management

NAME OF OFFICER REFERRING:

POSITION: SCM

SIGNATURE: [signature] DATE: 5/11/18

CONTACT(S) OF OFFICER REFERRING:

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GHANA HEALTH SERVICE FACILITY REFERRAL FORM

PATIENT REG. NO. 6992/18

Day	Month	Year
2	10	18

№ 0009729

Kindly fill this form legibly in triplicate. Retain triplicate copy in this facility. Original and duplicate accompany patient. Place cardbord between each set of three (3) sheets.

HEALTH FACILITY INFORMATION:

Name & address of referring health facility (including region & district)	ODUMAN HEALTH CENTER
Name of region & address of health facility referred to	AMASAMAN HOSPITAL
Time referred: 6:15 pm	Time of departure (if emergency): 6:20 pm

PATIENT/CLIENT INFORMATION

Surname				Other name(s)	
SEX: MALE: ☑ FEMALE: ☐	DATE OF BIRTH: Day	Month	Year	AGE: 21	INSURANCE STATUS: UNINSURED: ☑ INSURED: ☐ ID NO. .....
NAME & ADDRESS OF CONTACT PERSON/RELATIVE TELEPHONE NO. OF CONTACT PERSON: 0200642027				LINDA ANUMUAA	

PATIENT/CLIENT CLINICAL DETAILS

PRESENTING COMPLAINT(S): SEVERE ABDOMINAL PAINS

EXAMINATION FINDINGS(S):

TEMPERATURE: 36.6°C	PULSE: 76bpm	RESPIRATORY RATE: 22cpm	BP: 150/70mmHg	WT: 52kg

RESULTS OF INVESTIGATION(S) CARRIED OUT: HB – 11.5 ; BF – no mps seen

DIAGNOSIS(ES): ? SEVERE ABDOMINAL PAINS

MEDICAL MANAGEMENT/TREATMENT GIVEN: IM BUSCOPAN 40mg stat

REASON FOR REFERRAL AND COMMENT FOR NEXT LEVEL: FOR FURTHER MANAGEMENT PLEASE

NAME OF OFFICER REFERRING: Sophia O. Kuukyr

POSITION: SSN

SIGNATURE: Sophia

DATE AND SAMP: 2/10/18