

Assessment of Medical Records Management in Support of Service Delivery at Moi Teaching and Referral Hospital, Eldoret Kenya

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Article History

Received: 23.08.2017

Accepted: 27.08.2017

Published: 30.09.2017

DOI:

10.36347/sjahss.2017.v05i09.005



Abstract: Medical records support patients care, provide continuity in the event of a disaster and protect the interests of the organization and the rights of employees. The aim of the study was to assess medical records management at Moi Teaching and Referral Hospital (MTRH), in support of service delivery and suggest suitable guidelines in medical records management. Specifically, the study sought to identify types of medical records created at MTRH and medical services offered at MTRH and determine how medical records are organized and managed at MTRH. The study was informed by the records continuum model and FOX IT service delivery model. The study used a case study research design and adopted a qualitative approach with some aspects of quantitative research. Purposive and stratified sampling techniques were used to select a sample size of 302 respondents but the study arrived at a saturation point after interviewing 100 respondents. Interviews were used to collect data. Quantitative data was analyzed using descriptive statistics and later presented in text, table, charts and figures while qualitative data was grouped into themes and then analyzed. The key findings of the study were: medical records were surveyed in 2011, appraisal and disposal is necessary. The physical and information infrastructure available for records management and service delivery at MTRH include backup facilities to secure data, stable internet connections to avoid network fluctuations, portable devices and satellite telecommunications amongst others. The study recommends the use of policy guidelines in relation to the best practices of how medical records are managed; the use of electronic systems for opening, tracking and indexing of files; further training of records staff; and conducting regular records awareness workshops.

Keywords: Medical records management, Paper & electronic medical records

INTRODUCTION

Sound medical records management is an indispensable prerequisite for supporting efficiency and effectiveness in service delivery in a hospital. Hospitals compile and store medical records of patients for safekeeping and in some cases; the patients are allowed to keep their own records. By doing this, it will make them aware of their own health while at the same time become more interested and learning more about how their body reacts to certain diseases and external stimuli[1].

There are two types of medical records namely paper medical records and electronic medical records. According to Windleh [2], a medical transcriptionist comes across various types of medical paper records generated by hospitals, labs and doctors' offices. Each one has different type of content that requires different type of formatting standards. The most common types of medical records that a medical transcriptionist

transcribes include: Patient History and Physical exam report, Consultation report, Operative report, Radiology report, Pathology report, Laboratory report, Emergency report, Progress note report, Therapy report, Clinical notes, Autopsy reports, Biopsy reports, Psychiatric observation, Referral letter, Daily reports and Discharge Summaries.

Pat and colleagues [3] on the other hand give the following as the types of paper medical records that can be found in any health facility; Hospitals and emergency rooms records, Emergency medical services records (ambulance or medical intensive care unit/MICU), Records of physicians and specialists, Outpatient imaging (x-rays, MRI scans, CT scans, and so forth), Any outpatient labs where blood work or other tests (EMG, EKG, and so forth) were done, Inpatient and outpatient rehabilitation records including physical therapy, occupational therapy, and so forth, Outpatient pain treatment centers, Pathology specimens and

reports, billing records, Visiting nurse home care records, Mental health, substance abuse records and HIV records, Assisted living and nursing home records, Employment physicals, Fetal monitoring strips 'Videotapes of procedures, Pathology or laboratory work that was referred to an outside source, Drugstore pharmaceutical records, Inpatient pharmacy profiles, Inpatient narcotic control records, Labor and delivery, operating room, emergency room, radiology, and laboratory logs, Communication books used by nursing shifts to report to each other, Insurance companies records, Risk management reports or incident reports if there is an unusual occurrence.

According to the Head of HRIS Department the following are the paper medical records; central record registration form, demographic details form, social work form, referral form, continuation sheet, treatment sheet, nursing cardex, chart (fluid input and output, head injury, four hourly, two hourly, ICU), laboratory request form, radiology request form, operation notes, consent forms, mental forms, maternal records, neonatal form, input invoice, matrons day and night report forms, discharge summary and registration form (HOD HRIS, 2012). Medical records management involves: planning, controlling, directing, organizing, training, promoting and other managerial activities related to the creation, maintenance, use and disposition of medical records to achieve adequate and proper documentation of a health care organization's policies and transactions [4].

Kemoni [5] affirms that there are benefits accrued from records management, which include: ability to mitigate the considerable risks associated with inadequate records management practice, specifically, accountability, transparency, sound corporate governance, and public sector efficiency; compliance with statutory requirements; ability to provide enterprise-wide access to documents, records and information resources contained within multiple databases; ability to manage electronic documents and records as inviolate and credible evidence, knowledge of fundamental records management practices and how they relate to Freedom of Information and Information Privacy principles and increased productivity and individual accountability.

Accordingly, IRMT [6] affirms that the critical benefit of Medical Records is the enablement of organization to conduct business in an orderly, efficient and accountable manner, provide protection and support in litigation including the management of risks associated with the existence of or inadequate evidence of organization activity. Medical records provide continuity in the event of a disaster protects the interest of the organization, the rights of employees, patients and present and future stakeholders and are a

cornerstone of legal cases. Malpractice, product liability, personal injury, workers compensation, and other medical-related cases all depend on the information contained in and discovered from medical records.

Yet collecting, organizing, and analyzing data for these records is no small task. Records must be identified and obtained from many sources—a time-consuming and often frustrating task. They must be mined for meaningful data and organized for effective analysis and presentation. Doing a good job often takes considerable effort, but is necessary to building a strong case. In fact, the time and effort involved can cause firms to turn away large or complex cases that would otherwise be very attractive [7]. Management of records is essential for organizations and societies as it protects and preserves records as evidence of transactions [8]. It further states that records management system results in a source of information about business activities that can support subsequent activities and business transactions.

Service delivery of any nature is all about capability; capability of the team that was in place, capability of your business to deliver on the promises that were made; and capability of being able to stand over any key performance indicators or service level agreements [9]. It continues to emphasize that Service delivery is all about people first, process and procedure second because People delivered the work required to time and quality, they engaged with the customer and make them feel appreciated (or otherwise) and also people make the project work or fail. And finally, service delivery is about the customer that is, the customer needs to appreciate what is being delivered, is the one that gave you a reference next time that you are looking for one and a customer is a person that pays you once the job is done [10].

Moi Teaching and Referral Hospital offers a wide range of health services both Out-Patient and In-Patient. The services are supported by modern state of the art clinical and diagnostic equipment manned by trained and qualified medical, para-medical and support staff of different cadres both from the hospital and College of Health Sciences and are administered through the various Clinical Departments in the hospital. In addition, hospital committees have been formed under the Deputy Director Clinical Services to enhance patient care and overall delivery of services.

Statement of the Problem

Medical records are chronologically written account of a patient's examination and treatment that includes the patient's medical history and complaints, the physician's physical findings, the results of diagnostic tests and procedures, medications and

therapeutic procedures [11]. In effect, medical record of a patient is the clinical representation of the patient that is built over time by various clinicians with the consent, trust, privacy and confidence of the patient. It enables continuity of care and again, overtime, it becomes a comprehensive, clinical database from which various and salient clinical information is gathered through research. Moreover, medical records serve many functions but their primary purpose is to support patient care, and in almost all public health facilities in Kenya, they are kept in folders. Structuring the record can bring direct benefits to patients by improving patient outcomes and doctors' performance. On the side of patients, the records function as medical identification. However, it has been observed that there is a disconnect of types of medical records found at MTRH, how they are managed and the service delivery offered [12]. The services offered at MTRH are reception and registration of patients, filing and retrieval of patients' records, editing of the patients case records, storage and maintenance of all medical records among others [13].

Meijer [14] affirms that in many government institutions the records management responsibilities are informal, highlighting a lack of corporate approach to records. Moreover, lack of effective systems for opening, tracking and indexing files has contributed to missing and non-availability of laboratory and radiology reports among others. This has resulted into poor delivery of services and in the creation of new records on each visit by patients. There is therefore no continuity in patient care, repetition of doctor's work like history documentation, physical examination, investigations and prescribing drugs. The hospital patient care services have therefore become chaotic with much confusion and duplication of work.

The dominating trends in the effect of ICTs on records management are: the mixing of 'on the record' and 'off the record' communication; the shift of control over information to the individual; the focus on present rather than on historic information; the interlinking of information managed by several organizations, and the integration of procedures into computer systems. These trends indicate that the introduction of ICTs challenges the existing balance between organizational values [15]. On the other hand, as per the observation, MTRH is currently creating about 200 patient files on daily basis. The vast growth of records has created the problem of storage space. The records are created in the fourteen sections of the department and are supposed to be taken for storage at the Central Records Storage Section. However, there is shortage of space in the unit. As a result, some records are stored in the units that created them. This study sought to investigate how issues regarding sound records management at MTRH can enhance and service delivery and at MTRH and suggest suitable guidelines in service delivery to the users for its

implementation. The findings of the study will enable MTRH management and staff dealing with medical records to improve on medical records management, which in turn will improve service delivery to patients and the staff as well.

LITERATURE REVIEW

Service delivery is a topical issue for most governments and scholars alike. It is a consensus amongst scholars that public service delivery is critical to ensuring the national wellbeing and stimulation of economic development. This is because on daily basis governments carry out several regulated and unregulated activities to provide citizens with services and at the same time guarantee that these services are provided in accordance to the rule of law. Shepherd [16] asserts that better service delivery always begins with better records management practices. This is because government departments can only take appropriate action and make correct decisions if they have sufficient information readily available. Hence, proper records management supports efficiency and effectiveness in service delivery in a variety of ways. These could include, among others, documentation of policies and procedure that inform service delivery such as; the type of services provided; who are to be responsible for carrying out the work; and what costs involved.

Kemoni, Ngulube and Stilwell [17] have also affirmed that proper records management is significant to governments' realisation and achievement of their goals such as the rule of law, accountability, management of state resources, and protection of entitlements of its citizens as well as enhancing foreign relations. Shepherd [18] expands on Kemoni, Ngulube and Stilwell's [19] argument and observes, "effective information and records management provides the foundation for accountability, protection of human rights and increases citizens' awareness to their rights". Thus, it is imperative for government to continue improving their records management programmes in order to achieve greater service delivery, bearing in mind that the customers' socio-political and economical needs are diverse. The underlining point therefore is that proper records management facilitates planning, informed decision-making, supports continuity, consistency and effectiveness of public service delivery.

METHODOLOGY

The researcher used a case study research design, which was mostly qualitative with aspects of quantitative approaches. This enabled the researcher to get rich information while collecting and analyzing data. The target population was 1330 (one thousand three hundred and twenty six) which was a total number of staff from the three departments considered relevant to this study. They included, 898 nurses, 118 doctors,

137 registered clinical officers and 176 health records staff and ICT manager. The sample population was size of 302 (three hundred and two) members that is, 202 nurses, 26 doctors, 31 registered clinical officers, 39 health records staff and 4 HODs (HOD for Clinical Medicine, HRIS, Nursing and ICT). The study used a multi – method-sampling technique that utilized two sampling methods namely: purposive and stratified. Purposive sampling technique was used to identify key informants based on the position occupied and the critical roles played. The stratified sampling technique was used to select participants for in-depth interviews from the departments of interest. A sample size of 298 respondents and 4 key informants was arrived at for the study. All the health records and information services technologist, doctors and nurses who were on duty during the study period were included in the study. All the health records and information services technologist, doctors and nurses who were not on duty during the study period and those not willing to

participate in the study were excluded. Data collection was conducted primarily through an interview. According to Kombo, [20] interview is a way of obtaining data from a person by asking rather than watching him (respondent) behaves. Four interview schedules were designed for each of the following groups of respondents: nurses, doctors and Registered Clinical Officers, records Staff and HOD Nursing, Clinical Medicine, HRIS and ICT (Key Informants). Since data was qualitative in nature, it was analyzed through the through content analysis, a technique where the intuition and deductive approach is applied.

RESULTS

Types of Medical Records Created at MTRH

A hospital creates various medical records in order to improve service delivery. The study sought to establish various medical records created at MTRH and the results were as shown in Table 1.

Table-1: various medical records created at MTRH

Types of medical records	Agree		Disagree		Not sure	
	Frequency	%	Frequency	%	Frequency	%
Outpatient/inpatient records	15	100	-	-	-	-
Patient file folder	13	87	-	-	2-	13-
Admission forms	11	74	-	-	4	26
Continuation forms	9	60	2	13	4	27
Lab request	12	80	1	7	2	13
Radiological request	8	54	2	13	5	33
Cardexes and charts	12	80	-	-	3	20

Table 1 above shows the type of medical records that are created at MTRH as the HRIS staff. Statistics show that the HRIS staff affirmed that outpatient/inpatient records, patient file folder (referral form, operation notes and consent forms), admission forms, continuation forms, lab request, radiological request, cardexes, and charts are all created by the hospital to improve service delivery to service seekers. However, an open-ended question, nurse, doctors and registered clinical officers indicated records created as patient history, counseling and testing record and discharge forms. Different individuals within the distinct departments indicate that the HRIS staffs fully understand and appreciate their responsibilities. Other patient details mentioned include treatment sheets and discharge summaries. The creation and subsequent use and management of created records may pose a significant risk and problems to the institution and thus, Meijer [21] opined that managing electronic records in a government entity is increasingly becoming difficulty, since information and communication technologies confront organizations with various opportunities and risks. This affirms that notion that though hospitals created the records the task of record management could be one of the challenges faced by the institution.

Duranti [22] on the other hand, argued that the use of ICTs may negatively affect accountability because the electronic records may not be preserved, difficult to find or unreliable.

Medical Services Offered

The study established that medical services offered at MTRH are as follows:

- Medical diagnosis involves the analysis, observation and treatment of virtually every other individual who seeks curative or preventive healthcare services. MTRH offers this major service to its clients
- Outpatient services include all those services, which are offered to individuals who are seeking curative services but are not seeking to be admitted for further examinations.
- Inpatient services is the converse of the inpatient services and includes all the healthcare services whether preventive or curative offered to patients who are admitted for further reviews, examination or scrutiny.
- Preventive healthcare services are the services that are either precautionary or protective in nature. These services are provided upon

request or for the patients with specific needs such as malnutrition, worm infection, hypertension, and many others.

- Antenatal services are specifically designed for the pregnant women and are designed to aid in successful completion of pregnancy term.
- Post natal services are designed to help the mothers and newborns adapt and grow in the new environment.
- Surgical services are specialized intrusive and conducted to treat an internal ailment, trauma or correct an anomaly.
- Post curative services are offered to the inpatient who are recuperating at the holding units of the hospital
- Referral services consist of those services, which are by extension or referred by a third party for further analysis.
- Other medical services are not available at MTRH such as heart surgery

DISCUSSION

Medical Services Offered

Based on the findings on the Medical services offered at the hospital it was found that there are various services offered and they include health services, social development services, government information and financial management. Other medical services that are not available at MTRH were, heart surgery, retention and disposal schedules, regular records appraisals and survey, formulation and implementation of records management policy and digitization of record. This study was interested in the medical records management at MTRH because they render health services and records management, and records management affects medical services directly. The relevant departments should develop their systems by implementing a performance management system effectively, building staff capacity, reviewing, and re-engineering systems and structures continuously.

Types of Medical Records Created at MTRH

It was evident that the hospital creates and uses records during its regular operations of rendering the health service to the citizens. The major reason for sound records keeping and improving to the mode of records keeping in the health institution is to ensure improved patient care in the hospitals. The fundamental reason for sound management of records is to ensure the proper keeping of information that is to be used as evidence that the organization is operating as mandated. This is because records are the foundation for easy accountability, compliance with legislation, procedures and developing organizational memory. In health institutions, the patients' records are written by hand, typed in narratives, descriptive, or charted in medical terminology as long as other people will be able to read

it and comprehend the message. The information recorded must be accurate and usable for decision-making. The records are created based on observation, interpretation of data, treatment plans and patients outcomes.

Recordkeeping systems in the electronic, as well as in the paper are designed for the use of operational staff in current office operations, and not for or by archivists or for external researchers [23]. Due to this reason, the study established that outpatient/inpatient records, patient file folder (referral form, operation notes and consent forms), admission forms, continuation forms, lab request, radiological request, cardexes, and charts are all created by the hospital to improve service delivery to service seekers. Other patient details mentioned include treatment sheets and discharge summaries. The records created are patient history, counseling and testing record and discharge forms.

Medical Services Offered

The study found that medical services offered at MTRH included; Medical diagnosis, Outpatient services, Inpatient services, Preventive healthcare, Antenatal services, Post natal services, Surgical services, Post curative services and Referral services. Other medical services that are not available at MTRH were heart surgery.

CONCLUSION

Based on the findings of the study, the researcher made the following conclusions. The study concluded that the types of medical records created at MTRH are created at the source following the required procedures and guidelines of healthcare institutions. Even though the records are created, there are enormous challenges of managing the records that have been created and this include; use and utilization of the already existing infrastructure, lack of adequately trained HRIS staff and lack of a record management policy.

RECOMMENDATIONS

Based on the findings, the researcher made the following recommendations. Medical records management systems need to be improved to ensure that the health workers in the public health institutions, such as medical doctors and nurses, do not struggling to render timely and effective health service to citizens. Effective records management systems need to be implemented by the hospital management to ensure a reasonable patient waiting time before receiving health services. The system must enable quicker or timely retrieval of records. The health workers need to render health services with the health history of each patient contained in medical files, at all times, as required to

avoid rendering a poor health service that might be risky to patients' health.

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