7-2016

The Copy and Paste Function and the Quality of the Electronic Health Record (EHR)

Francesca John
University of Tennessee Health Science Center

The Copy and Paste Function and the Quality of the Electronic Health Record (EHR)

Francesca John

Department of Health Informatics & Information Management

University of Tennessee Health Science Center

Master's in Health Informatics & Information Management

JULY, 2016

Abstract

The copy and paste (c/p) function is utilized by many clinical and administrative staff in the healthcare organization. A survey comprising of 10 multiple choice questions was randomly administered to 60 employees at a skilled nursing facility to determine if the utilization of the copy and paste function leads to errors in the electronic health record (EHR) and ultimately reduced the quality of the record. After reviewing and analyzing the results it was found errors have been noticed in the record due to the c/p function, however, the respondents believed although these errors existed, the c/p function actually enhanced the quality of the EHR.

COPY AND PASTE

Table of Contents

List of Tables

List of Figures

Main Body

COPY AND PASTE

Chapter 1-Introduction

Statement of Problem

The copy and paste function is utilized by many healthcare organizations. Hospitals have been known to utilize the function for many purposes to include record completion timeliness. However, the function could result in a number of errors that could ultimately negatively affect the patient. These errors include

Background of the Problem

It's been known for hospitals to utilize the copy and paste function to reduce time spent on administrative work, while others try to fraud the healthcare industry. Copying and pasting can be used to make it seem as though a patient received certain treatments or a different diagnosis, when they didn't. This process is known as up-coding. The hospital staff may place a more serious code for the patient when the patient only had a minor condition. When up-coding, this allows the facility to receive more revenue for services that have not been rendered. Inflating claims is a fraudulent act and subject to criminal penalties (Medical, 2014). Due to this illegal act from many healthcare facilities, the federal government has spent hundreds of millions of dollars in investigating fraudulent activity (Medical, 2014).

The copy and paste function is widely used when taking medical histories. According to the September 2013 AHIMA report, a great deal of physicians utilizes the cut and paste function in their electronic health record (EHR) (approximately 74 to 90% of physicians) (Healthcare, 2013). Another 20 to 78% of physicians admitted their notes are generated from copied text (Healthcare, 2013). These numbers pose a huge risk to the quality of the EHR. Many staff members don't verify the patients' medical history and simply copy's the patient's medical history from a prior visit. For the facility, this cuts down the time the patient is in the doctor's

office to allow the physician to see more patients and bring in more revenue. However, not

asking for updated medical history vital information can be missed regarding the patients current

health status. There could be multiple new diagnoses/issues or issues that are no longer exist.

By not updating the patients' medical history during every visit the EHR is considered

inaccurate. Clinical staff may also use the copy and paste function when completing progress

notes. This could lead to serious issues when the copied note is not verified to ensure the

information is current to what happened that day. A prime example would be the story of a

patient at Yale New Haven Hospital in Connecticut (Amednews.com, 2013). The patient had a

pressure ulcer with an abscess that needed draining (Amednews.com, 2013). A surgical intern

placed the note in the patient's record, but after the abscess was drained the intern continued to

copy and paste the same note, stating the abscess needed draining, in the patient's record

(Amednews.com, 2013). This could have been detrimental to the patient if the error wasn't

caught prior to altering the patient's antibiotic regimen (Amednews.com, 2013). These are

serious errors they affect the quality of the electronic health record.

Inputting pertinent medical information in the wrong patients file is another downfall of

utilizing the copy and paste function. Placing patient information in another's patient's account

can be harmful to both patient's health and lifestyle. A patient could be told he/she has terminal

cancer when in actuality it's simply an error made by copying and pasting. This could cause the

patient to become depressed and possibly commit suicide. Dianna Warner of AHIMA recalled

an incident that occurred while working at a healthcare facility. A patient of the facility, who

was known to have a family history of breast cancer, now due to a copy and paste error the

patient had a history of breast cancer (Healthcare, 2013). The patient's insurance company

caught wind of the new diagnosis and began the process of dropping the patient's insurance

coverage (Healthcare, 2013). This also affected the facility because it had to work with the insurance company and explain exactly what happened (Healthcare, 2013). The facility had to research exactly where the copy and paste error started, find all the documents the error was repeated on as well as contact all the companies the error was sent to (Healthcare, 2013). The error not only affected the patient but utilized unnecessary man hours from the hospital's budget.

Purpose of the Study

Research has shown the copy and paste function is used widely throughout the healthcare industry. The purpose of this study is to determine whether or not the copy and paste function, utilized in the EHR, is detrimental to the quality of the EHR. In terms of 'detrimental', this study was constructed to determine if there is a potential for errors when the copy and paste function is utilized and if the quality of the EHR is reduced due to this.

Significance of Study

This study is important for the healthcare industry to take heave to. The copy and paste function has been utilized for many years with minimal studies performed on the function. This study will assist the healthcare industry with recognizing the potential for great errors to occur. Many healthcare professionals utilize the function unknowing to them the problems that may arise if not used correctly.

The results of this study should be viewed as valuable information that can help change the cultural of the utilization of the function. The study could potentially open more avenues for researchers to perform more elaborate studies on different types of facilities utilizing the function.

Research Question

The study performed will help answer the question of whether or not the copy and paste function can reduce the quality of the EHR by presenting the risk of unnecessary errors. The responses from the study will help provide a better understanding of errors, where they were located and if the quality is affected by the utilization of the function.

Limitations

Due to the size of the study a true synopsis of healthcare professionals input on the copy and paste function's effect of the electronic health record will not be adequately displayed. This survey was administered to only one healthcare facility which will obscure the result to simply that facility's perspective. Because the healthcare industry is such an enormous entity, there must be a more elaborate study constructed to get a clearer picture of healthcare professional's consensus of the copy and paste function and the quality of the electronic health record.

Chapter 2-Review of Literature

It's been noted; although copy and paste is utilized by many in the healthcare industry, it does indeed pose a risk of reducing the quality of the EHR. The potential for patient redundancy and outdated information threatens the EHR when the cut and paste function is utilized.

A cross sectional survey was utilized to determine the physicians copy and paste function use, its impact on notes and patients care, and the opinions regarding future use (Adelman, 2009). 315 physicians responded to the survey. Out of 253 physicians who actually wrote in the inpatient EHR, 226 utilized the cut and paste function and 177 used it majority of the time when writing progress notes. The results noted that although there were inconsistencies and outdated information where cut and paste was used, the majority of physicians did not see a substantial problem and still would utilize the cut and paste function (Adelman, 2009). The researchers concluded that although significant deficits in note writing while utilizing the cut and paste function were noted, further studies are needed to determine the extent it has on the quality of the EHR and the safety of patient care (Adelman, 2009).

In another study, researchers analyzed a large scale EHR corpus and quantified redundancy in terms of both words and semantic concept repetition (Cohen, 2013). The focus of this study was on copy and paste redundancy in the EHR. The study mentioned clinicians typically use the function when gathering information from previous notes into a current patient encounter. The researchers found redundancy levels of approximately 30% and non-standard distribution of words and concepts. Redundancy was found on the same patient with similar note type. The observed redundancy was ultimately due to the copy and paste function and not to clinical content (Cohen, 2013).

An article from *Applied Clinical Informatics* discusses the purpose of the cut and paste function. According to the article, the function is used by providers to simplify the documentation process, however, there should be restrictions placed on the utilization of the function to prevent 'note bloating'. There are frequent errors found when utilizing the function. Copy and pasting can be interference to effective communication just as much as it supports the physician while completing patient documentation. The article concluded effective copy and pasting should be utilized only during certain circumstances, such as referencing a consultant's recommendation in another providers note (Bria II, 2013).

Another article published by the *American Journal of Medicine* discusses the danger of the copy and paste function. The function has led to a multitude of problems and concerns about electronic filing. The authors mentioned several reasons the function was hazardous, to include; problem lists never changing, hospital staff copying each other's notes as well as errors, and the narrative function becoming obsolete (Adelman, 2009). The solution mentioned was not to eliminate the copy and paste function, but structure notes in a way that prevented the provider from utilizing the function, i.e. on progress notes.

Chapter 3-Methodology

In this section, an evaluation of the research methodology will be discussed. The research design, data collection procedures and instrument as well as the data analysis procedures will be described.

Research Design

To conduct this research a survey tool was constructed. The survey was designed to accurately capture data compromise significant results. The survey consists of 10 multiple choice questions relating to the copy and paste function. The survey questions were approved by the Internal Review Board at the University of Tennessee Health Science Center. The questions focused on who utilized the function, what the function is used for, and any errors relating to the utilization of the copy and paste function.

Population and Sample Design

The population was determined based of the size of the facility. The facility was chosen because it had a variety of different types of healthcare workers. The facility contains approximately 400 employees. The sample was then determined to be that of 60 employees to effectively constitute the purpose of this study.

Data Collection Procedures

The survey was created utilizing REDCap, a database provided to UTHSC students with prior approval. Once the survey was created a link was sent to employees to complete the survey. When the 60th survey was completed, the REDCap database automatically discontinued the production of the survey.

Data Collection Instrument

The survey was developed after thorough research of the copy and paste function and other studies. Once research commenced the survey was developed utilizing the REDCap database. The survey consisted of ten questions geared toward the copy and paste function. The questions were constructed so an answer was required for each question. These questions were multiple choice style questions with the only option for free writing if the choice was 'other'. Although, all questions were deemed 'must answer questions', it was still found possible to leave questions blank after the survey results were gathered.

Data Analysis

The data was collected over the course of a month's span. Initial emails were sent when the survey was initially created. After approximately two weeks a friendly reminder was sent to individuals who had not completed the survey. Once the 60th participant completed the survey, REDCap automatically closed the survey so no further submissions were made. Out of the 10 questions asked, 6 questions were utilized to analyze the research question. These questions were; when is copy and pasting utilized, who utilizes it, were errors recognized, where were the errors, could the error negatively affect the patient, and if the copy and paste function enhanced the quality of the electronic health record. The data was reviewed to ensure the above questions were answered completely. If these questions were missing responses the survey was not used in the data analysis.

Summary of Chapter

The methodology chapter discussed the evaluation of the research study. The research, population and sample design were discussed. The collection of data, the data instrument as well as the data analysis were also reviewed.

Chapter 4-Results

This chapter will discuss the results of the survey. It will include the response rate, representativeness of sample, and discuss the results of the survey compared to the research questions.

Response Rate of Population/Sample

The data was collected over the course of a month's span. Initial emails were sent when the survey was initially created. After approximately two weeks a friendly reminder was sent to individuals who had not completed the survey. Once the 60th participant completed the survey, REDCap automatically closed the survey so no further submissions were made.

Representativeness of Sample

The survey was administered to 60 employees at the nursing home facility. These employees ranged from physicians to administrative personnel. Of the 60 employees surveyed 9 were physicians, 29 were nurses, 6 were Physicians assistants, 10 were therapist, and 6 were administrative personnel (Fig.1). 7 of the 60 surveys were removed due to incomplete surveys. Of the remaining 53 surveys, the copy and paste function is utilized in many areas of the electronic health record. 35 surveyors stated they noticed the function utilized in progress notes and 28 noticed copying and pasting in the discharge summary (Fig.2). Other areas included the history and physical and during the coding/billing process (Fig.2). Based on the survey findings, 95% of the surveyors found errors when c/p was utilized (Fig.3). These errors were found in different sections of the EHR, such as the discharge summary, history and physical, progress notes, amongst other areas (Fig.4). When asked if the errors could have led to harm to the patients, 92% of the respondents answered yes (Fig. 5). Although, the potential for errors were

noted when utilizing the c/p function 35 surveyors believed the c/p function enhanced the quality of the electronic health record.
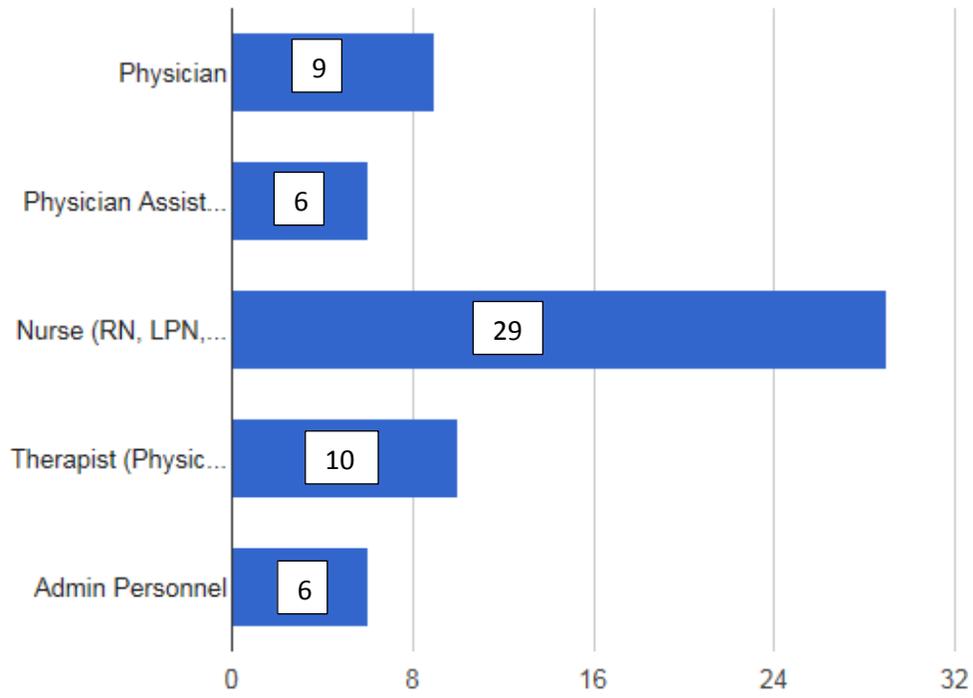
Research Question

The overall consensus regarding the quality of the EHR and the copy and paste function is the c/p function in fact enhances the quality of the EHR and the respondents will continue to utilize it.

Summary of Chapter

The results chapter discussed the results of the survey. This included the survey response rate, the representativeness of the sample and the results of the data pertaining to the research question.

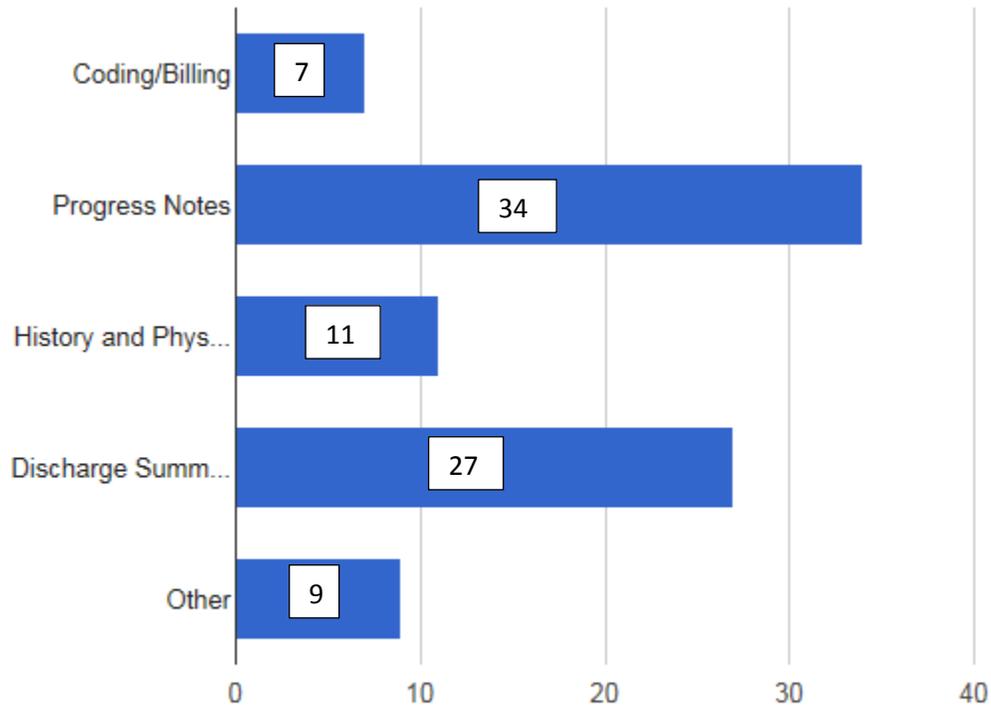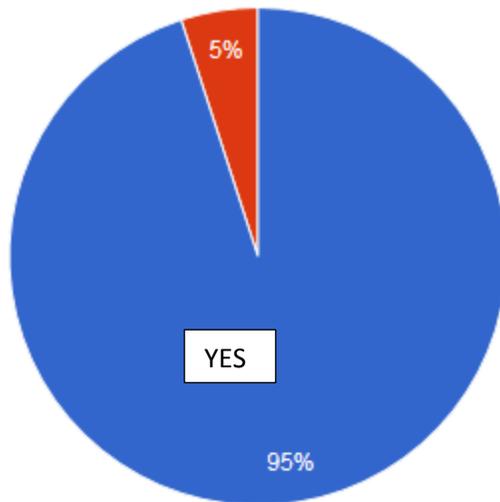**What is your affiliation with the organization?**

Figure 1

When is the copy and paste function utilized?

Coding/Billing — 7

Progress Notes — 34

History and Phys... — 11

Discharge Summ... — 27
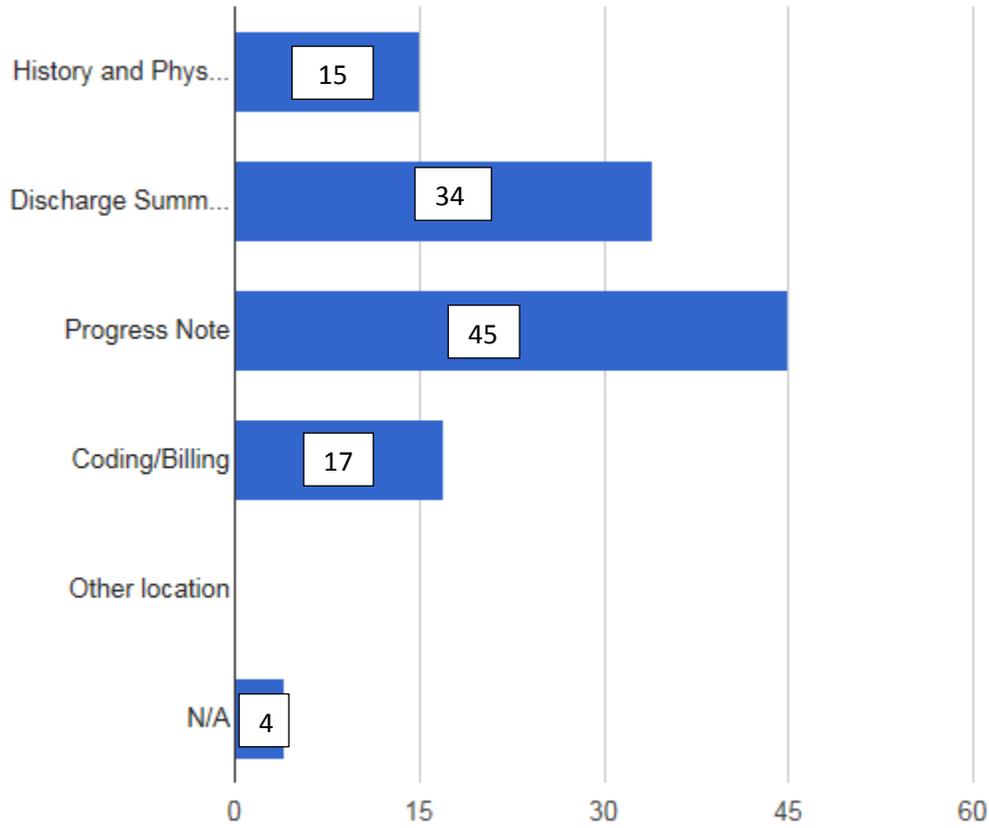
Other — 9

(x-axis: 0, 10, 20, 30, 40)

Have you recognized a potential for errors when c/p is utilized?
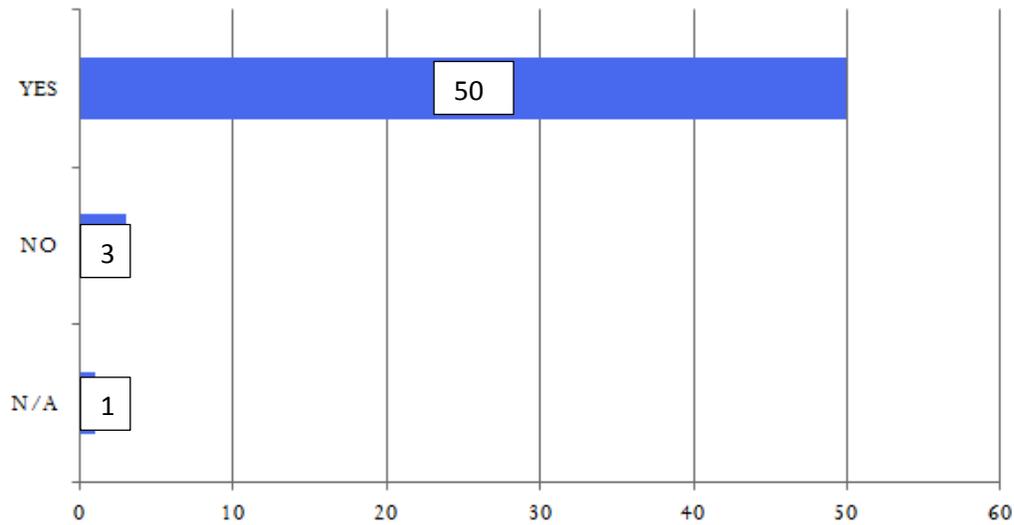
5%

YES

95%

Where, in the EHR, were these potential errors recognized?
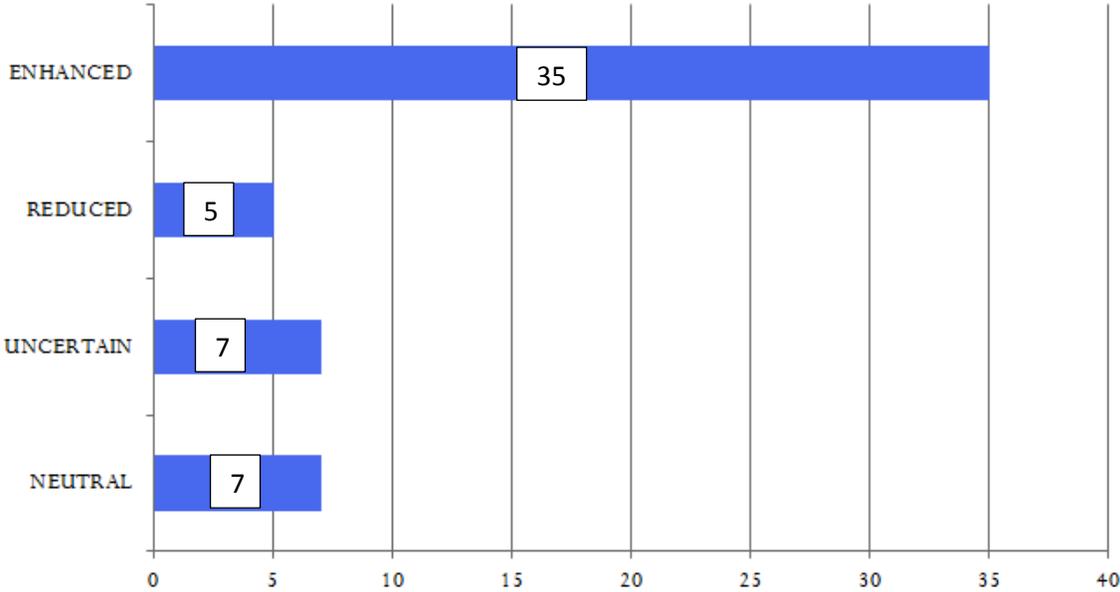
Figure 4

Could these errors have negatively affected the patients care?

Figure 5

Do you feel the quality of the EHR is reduced or enhanced with the use of the

Figure 6

c/p function?

ENHANCED — 35
REDUCED — 5
UNCERTAIN — 7
NEUTRAL — 7

Chapter 5- Conclusion and Recommendations

This chapter will discuss the summary of findings, implications of study and recommendations regarding the copy and paste function.

Summary of Findings

The research findings revealed many health professionals, to include therapist and administrative personnel, utilize the copy and paste function. The vast majority of respondents indicated the c/p function was utilized to increase their productivity and timeliness. The c/p function was mostly utilized when completing progress notes and discharge summaries. Other areas where the function was utilized included, the history and physical and during the coding/billing process. Due to the use of the c/p function many respondents reported the awareness of potential errors in multiple locations of the electronic health record. Although, these potential errors were noted and could have negatively affected the patient, the many respondents noted the function actually enhanced the quality of the EHR.

Conclusions

To conclude the research study, the research question of whether the copy and paste function produced errors in the record, which in return decreased the quality of the EHR was asked. The copy and paste function is utilized widely by the health care industry. The function is used to assist in productivity and the timely completion of records. Healthcare clinical personnel utilize the function when documenting in progress notes, discharge summaries, as well as history and physicals. However, the c/p function can lead to potential errors in the patient's medical record. After reviewing and interpreting the survey findings, although, errors were apparent in the electronic record, it seems the functions' benefits outweigh its downfalls. The

healthcare professionals will continue to utilize the function to assist with the day-to-day tasks of patient documentation.

Recommendations

The copy and paste function could result in numerous errors that could negatively affect patient care. Utilizing the function could lead to serious issues such as up-coding records, inaccurate medical histories and progress notes as well as information being placed into the wrong patient's record. Additional research studies must be performed to develop a clear consensus on the use of the copy and paste function and any perceived errors. Healthcare standards and facility guidelines should be in place to help prevent the likelihood of errors when the function is utilized.

References

Adelman, R.D, Barron, Y, Callahan, M.A, Kaushal, R., O'Donnell, H.C, Siegler, E.L. (2009)

    Physicians' attitudes towards copy and pasting in electronic note writing. *Journal of*

    General Internal Medicine, 24(1), 63-68.

Adelman, R. Siegler, E. (2009). Copy and paste: a remedial hazard of electronic health records.

    American Journal of Medicine, 122(6), 495-496.

Amednews.com. February 2013. EHRs: "Sloppy and paste" endures despite patient safety risk.

    Retrieved from http://www.amednews.com/article/20130204/profession/130209993/2/

Bria II, W. Hamann, C., Ozeran, L. Shoolin, J.S. (2013). Association of medical directors of

    information systems concensus on inpatient electronic health record documentation.

    Applied Clinical Informatics, 4(2), 293-303.

Cohen, R. Elhadad, M., Elhadad, N. (2013). Redundancy in electronic health record corpora:

    Analysis, impact on text mining performance and mitigation strategies. *BMC*

    Bioinformatics, 14(1), 10.

Healthcare IT News. October 2013. EHR copy and paste? Better think twice. Retrieved from

    http://www.healthcareitnews.com/news/ehr-copy-paste-better-think-twice

Medical Economics. January 2014. EHR copy-and-paste function: Fraud or efficiency?

    Retrieved from http://medicaleconomics.modernmedicine.com/medical-

    economics/content/tags/ehr/ehr-copy-and-paste-function-fraud-or-efficiency?page=full