



RADIOLOGY REQUEST FORMS (RRF) INADEQUATELY COMPLETED; THE CASE OF A TERTIARY HEALTH CENTER IN NORTHWEST NIGERIA

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ABSTRACT

Background: The need and importance of adequately completing radiology request forms cannot be over emphasized. Thus, this study investigated the pattern in which radiology request forms are completed by clinicians in a tertiary health center. **Methods:** A total of two hundred and fourteen (214) samples of request forms were randomly selected from records of the Radiology Department of the Federal Medical Center, Birnin Kebbi, Nigeria. The request forms comprises of requests from various departments within the hospital. All the data collected from the request forms where entered into Microsoft excel and items/fields on the form were examined. **Results:** From this study, it was observed that out of the total 214 forms collected, 209 (97.7%) of the forms were not adequately completed with only 5 (2.3%) fully completed. Other items on the request form that were also least completed were the referring physicians name (2.3%), patients' full address (2.3%) and patients age (62.6%). **Conclusion:** We conclude that radiology request forms are inadequately completed as seen from the present study, thus the need to enlighten the referring physicians on the need to adequately and properly complete radiology request forms as this is vital in improving the accuracy of radiologists report / interpretation.

KEYWORDS: radiology, physician, request forms, patients, health center.

INTRODUCTION

The importance of Radiology Request Form (RRF) cannot be over emphasized. In fact, according to previous reports, RRFs are forms used to define minimum radiology request information required by the radiologist to review the justification of the request, verify radiology request information and decide on the type of examination protocol before exposing the patient.^{1,2}

According to the Royal College of Radiologists (RCR) in its referral guidelines, insists that requests be completed accurately and legibly to avoid misinterpretation and reasons for request should be stated clearly with sufficient clinical details.³

Moreover, it is very essential that radiologist be provided with all the relevant clinical information so as to be able to prioritize and interpret radiological investigations. This coupled with

reliable and timely communication of results forms the very core of an effective imaging science.³

Communication between clinicians is an important element in a multidisciplinary approach to patient management in hospitals. Thus, there is need for writing and referral notes to be clear and very legible. Referral notes should convey meaningful information that will help better the services rendered to the patients. Radiology department is central on the clinical management of patients because most of the patients passing through the hospital would go through radiology department at one time or the other.⁴

Radiology request forms and radiological reports constitute the major ways of communication between radiology department and other related clinical departments. For this reason, adequate

clinical history and demographic information (biodata) will go a long way in enhancing communication between them.^{5,6,7}

Clinical information when available and properly provided is essential for prompt interpretation and adequate radiological examination. This increases the accuracy of radiological reports⁵⁻⁷ and will consequently improve subsequent patient management.^{5,6,7} Inadequate clinical history on the other hand may be misleading, resulting to inappropriate examination and wrong interpretation or unnecessary repeat of examinations thereby prolonging patient radiological examination time.^{5,6,7}

The aim of this study was to investigate the pattern in which radiology request forms are completed by physicians / clinicians in a tertiary health center with special emphasis on the provision of clinical information and demographic data on the radiological request forms sent to the radiology departments.

MATERIALS AND METHODS

A total of two hundred and fourteen (214) samples of radiology request forms (RRF) were randomly selected from records of the Radiology Department of Federal Medical Center, Birnin Kebbi, Nigeria. The request forms comprises of requests from various departments within the hospital. All the RRFs examined were for plain radiographs only while all entries for contrast examination, computed tomography (CT) scan or Magnetic Resonance Imaging (MRI) were excluded. This study was a prospective cross sectional study conducted over a period of six (6) months (February to July 2014).

Availability of the clinical information and demographic data i.e. name of patient, age, sex, hospital number, ward / department, examination required, identification of the referring physician, information on previous radiological examinations, type of examination among others were extracted from the request forms and assessed.

STATISTICAL ANALYSIS

All the data collected from the request forms where entered into Microsoft excel and items/fields on the form were examined. The collected data were analyzed using Analyze-It Software on Microsoft Excel.

RESULTS

From this present study, it was observed that out of the total 214 forms collected, 209 (97.7%) of the forms were not adequately completed with only 5 (2.3%) fully completed (Figure 1).

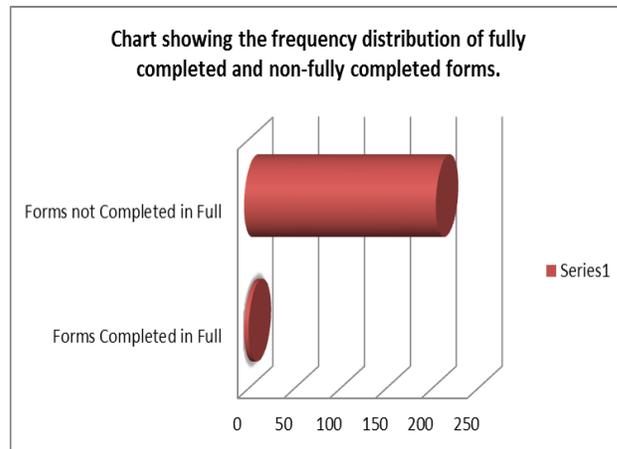


Figure 1: Chart Showing a Comparison between fully completed request forms and non-fully completed request forms as seen in this Study.

Figure 2 below, shows the frequency distribution of the completed items on the radiology request forms as observed in this study. Items such as patient’s name, patients surname, sex, patient hospital number, investigation required, date of examination and signature of referring physicians were adequately completed. Other items on the request form that were least completed were the refereeing physicians name (2.3%), patients’ full address (2.3%) and patients age (62.6%) (Figure 2).

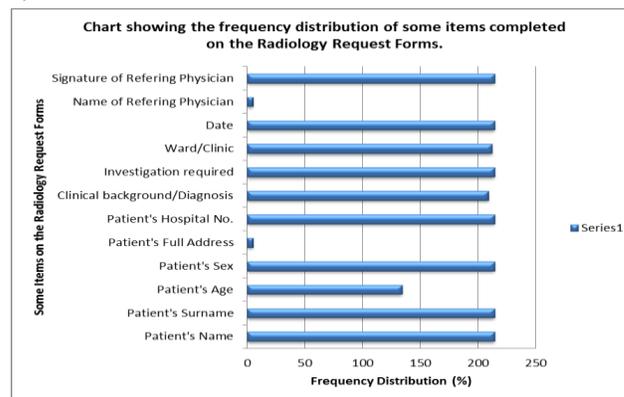


Figure 2: Bar Chart Showing the Frequency Distribution of Some Items completed on the Radiology Request Forms.

DISCUSSION

It is essential that radiologist be provided with all the relevant clinical information so as to be able to prioritize and interpret radiological investigations. This coupled with reliable and timely communication of results forms the very core of an effective imaging service.³ Deficiencies in the filling or completion of radiological request forms have been identified as a worldwide problem.⁷ Inadequately completed RRFs has been associated with increased level of inadequate clinical information⁸ thus affecting the patient management.⁷

From this present study, we observed that out of the total 214 request forms investigated only 5 (2.3%) were fully completed. This agrees with similar findings in which only 4% of the total 200 request forms evaluated were fully completed (REF). Our findings of a higher percentage (97.7%) inadequately completed forms is in line with Depasquale and Crockford who also reported a higher percentage of 96% inadequately completed request forms.⁷

Moreover, in order to find ways of improving the transmission of radiological request forms information so as to facilitate better reporting by radiologists, studies were conducted in Ghana, Sierra Leone and some parts of Nigeria. All these studies also reported significant levels of incomplete request information ranging from absence of age of patients (29%), absence of clinical information (23%) and illegible entries (15%).¹¹ There was also a report showing unconventional abbreviations on request forms.¹¹

We also observed that not all the items on the request forms were completed. This agrees with previous study that reported non-completion of some items on the request forms such as history of any previous X-rays examination, previous operation, any known allergy or reaction etc among others. This may not be unconnected with the fact that majority of referring physicians pay less attention to the need for adequate completion of the RRFs. Also, our finding however is in contrast with what was obtainable in other studies.

CONCLUSION

In conclusion, radiology request forms were inadequately completed as seen from the present study, thus the need to enlighten the referring physicians on the need to adequately and properly complete radiology request forms as this is vital in improving the accuracy of radiologists report / interpretation.

We therefore recommend that a multidisciplinary approach be adopted by various teams involved in the management of patients so as to get the best possible services.

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CONFLICT OF INTEREST

None declared.

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