

# A Simple Audit of Radiological Request Forms at the University of Port Harcourt Teaching Hospital

Type of Article: Original

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## ABSTRACT

### BACKGROUND

Radiological investigations are often essential in the management of patients. The request forms act as a medium between the managing Physician and the Radiologists who is often required to make significant input. Failure to properly complete these forms may therefore result in misdiagnosis and possible mix-up of the forms. We therefore, undertook to document the extent to which radiological request forms are properly filled.

### METHODS

Three hundred radiological request forms which had already been filled out by doctors at the University of Port Harcourt Teaching Hospital between January and June, 2014 were randomly selected and analyzed. The forms were evaluated for completeness of the information entered by the clinician.

### RESULTS

The names of the patients and the requested investigations were fully entered on all 300 forms. However, all other criteria were not fully completed. The ages of the patients were filled in properly on 259 (86.3%) forms, while 13 (4.3%) did not record any age. The date on which the investigations were requested was filled on 294 (98.0%) of forms. Four (1.3%) did not fill in any date while it was

incompletely filled in 2 (0.7%). Also, the sex of the patient was filled on only 292 (97.3%). The required clinical information of the patient was recorded in 275 (91.7%) of forms. One (0.3%) did not give any clinical information while 24 (8.0%) forms did not have adequately filled clinical information. Also, the name of the requesting doctor was filled in 273 (91.0%) forms while 27 (9.0%) forms did not have the name of the requesting doctor. The requesting doctors signed in 273 (91.0%) forms while 27 (9.0%) did not carry any signature. The name of the Consultant Surgeon was recorded in 244 (81.3%) while 56 (18.7%) did not have the Consultants' names.

### CONCLUSION

Radiological request forms are not always filled out properly. Only the names of the patients and the required investigations were properly written.

### KEYWORDS

Radiological request; forms completion; audit.

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### INTRODUCTION

The management of the patient often requires a multidisciplinary approach involving the Clinician and the Radiologist; certain radiological investigations may therefore be required for this purpose. Such investigations

may include x-rays, ultrasound scans, magnetic resonance imaging, computerized tomography among others. These investigations which are often necessary in the diagnosis and continued treatment of the patient are performed in the radiology department; and usually require the input of a radiologist for proper diagnosis. This need thus makes the adequate communication between the managing clinician and the radiologist an essential component of patient care. One of the key modes of communication between the clinician and the radiologist is the radiology request form which contains required information about the patient, the disease and the required radiologic test.

In order for the required investigation to be done and a proper interpretation made by the radiologist, these forms have to be properly and correctly filled by the requesting doctor whose responsibility it is to do so<sup>1</sup>. It is therefore imperative that such forms are properly and legibly filled. Certain studies have shown that request forms from doctors are not always properly filled<sup>2,3,4,5</sup>. This is unacceptable as it may negatively limit the required input by the radiologist and ultimately affect the management of the patient.

We therefore undertook this study to document the level of completeness of radiological requests forms by doctors working at the University of Port Harcourt Teaching hospital.

## METHODS

Three hundred radiological request forms of patients that were filled between January and December, 2014 were randomly selected and analyzed. The forms were analyzed to document the completeness of entry of the following details by the requesting doctors; name of the patient, age, sex, investigations requested for, clinical details, name and signature of the requesting doctor, name of the managing consultant, patient's phone number and address.

The various criteria were categorized as 'no entry' when the column for such entries were left blank, 'complete entry' when these were properly filled in and 'incomplete entry' when the required information was not completely filled in.

## RESULTS

A total of 300 radiological request forms were analyzed in the study. Only the names of the patient and the requested investigations were recorded on all 300 forms. The details of form completion are as shown in table 1.

The ages of the patients were filled in properly on 259 (86.3%) forms, while 13 (4.3%) did not record the patients' age. Twenty eight (9.3%) were incompletely entered. They used certain terminology like 'adult' or 'child'.

The date on which the investigations were requested was filled on 294 (98.0%) of forms. Four (1.3%) did not fill in any date while it was incompletely filled in 2 (0.7%). Also, the sex of the patients was filled on 292 (97.3%) of the forms, while 7 (2.3%) did not have the sex of the patients.

The required clinical information on the patient was recorded in 275 (91.7%) of forms. One (0.3%) did not give any clinical information while 24 (8.0%) forms did not have adequately filled clinical information.

Also, the name of the requesting doctor was filled in 273 (91.0%) forms while 27 (9.0%) forms did not have the name of the requesting doctor. The requesting doctors signed in 273 (91.0%) forms while 27 (9.0%) did not carry any signature. The name of the Consultant Surgeon was recorded in 244 (81.3%) of forms while 56 (18.7%) did not have the Consultants' names.

Only 37 (12.3%) of forms had the home address of the patient while 232 (77.3%) did not have. Thirty one (10.3%) had incomplete addresses written.

**Table 1**

Criteria	Form with complete entry	Form with no entry	Form with incomplete entry
<b>Patient information</b>			
Name of patient	300(100%)	0(0%)	0(0%)
Gender	292(97.3%)	8(2.7%)	0 (0%)
Age	259(86.3%)	13(4.3%)	28(9.3%)
<b>Doctor information</b>			
Name of Consultant	244 (81.3%)	56 (18.7%)	0 (0%)
Name of requesting Doctor	273 (91.0%)	27 (9.0%)	0(0%)
Signature of Doctor	273 (91.0%)	27(9.0%)	0 (0%)
<b>Clinical information</b>			
Relevant clinical information	275 (91.7%)	1 (0.3%)	24 (8.0%)
<b>Investigation information</b>			
Date of investigation	294(98.0%)	4 (1.3%)	2 (0.7%)
Required investigation	300(100%)	0 (0%)	0(0%)

## DISCUSSION

The radiology request form is an important link between the managing doctor and the radiologist. Relevant information must therefore be contained in the request forms to assist the radiologist in conducting proper investigation and in making his diagnosis. If this is not done it, becomes a grave error because it may result in misunderstanding between the requesting doctor and the radiologist. This could result in situations where investigations not otherwise indicated may be done which might necessitate a repeat of the radiological investigation thereby increasing exposure of the patient to radiation<sup>6</sup>.

Few studies exist in auditing the completeness or otherwise of these request forms. Our results show that all the forms had the names of the patients properly filled in. This is expected since a form without the patient's name would not qualify to go through the process of payment as required in our hospital before being sent to the radiology Department. However, other data were not fully entered.

Most studies show that Clinicians do not always fill these request forms properly, for example, Triantopoulou et al<sup>7</sup> in their study noted that the age of the patient and the

probable diagnosis were not given in 81.5% and 46% of the request forms. Findings from our study reveal a much better result as only 4.3% did not state the ages of the patients and 1% did not give any clinical information. Although, 9.3% and 8.0% of the forms respectively had incomplete entries for age and clinical information.

It is a possibility that some requesting doctors may not have seen the patients or may not be the ones directly managing the patient. This is likely to happen when junior doctors are asked to fill out radiological request forms of patients they have not directly attended to. It was observed by Bosanquet et al<sup>8</sup> that about 30% of requesting doctors did not know the patients and were not directly responsible in the treatment. This may invariably account for some of the problems of poorly filled forms. Our study did not however consider this aspect but one is tempted to believe that this may also be the case in our study when we consider the large number of forms that were poorly filled. It is my suspicion that some doctors because of pressure of work, and without considering the importance of a properly filled form, may not necessarily give the required attention to filling their radiological request forms.

Eighteen percent of our study forms did not carry the names of the Consultant while 9.0% did not have the names of the requesting doctor. This is similar to studies done from other centres<sup>9,10</sup>. This situation makes it rather difficult for the radiologist to properly address the request posed by the referring doctor as required by practice. Without the names of the requesting doctor or their telephone numbers or the names of the consultant, it becomes difficult for the radiologist to make any contact with the managing team to clarify issues when necessary.

## CONCLUSION

In conclusion, we observed that radiological request forms are not always properly filled. Except for the name of the patient and the investigations requested, all other parameters were incompletely filled. This situation is a

cause for concern. We would therefore wish to recommend that a periodic audit is carried in hospitals to address this matter. Also, there should be a continuous enlightenment of doctors regarding the proper filling of request forms.

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