

# Are Radiology Request Forms Adequately Filled In?

## An Audit Assessing Local Practice

Ruben Depasquale, Malcolm P Crockford

### Abstract

**Background:** Radiology request forms are essential communication tools used by doctors referring patients for radiological investigations. Their importance, however, is highly underestimated. We set out to perform a process audit of the adequacy of completion of such request forms in St. Luke's Hospital, Malta.

**Methods:** A representative sample of 200 randomly selected request forms received by the radiology department in early September 2004 was reviewed. These included requests for a variety of examinations from different departments within St. Luke's Hospital. A database of the collected forms was created, noting which of the various fields were adequately completed.

**Results:** Only 4% of the 200 request forms reviewed were completed in full. The percentages of the various fields completed were: patient's name and surname - 100%; patient's full address - 77%; patient's age - 29%; referring ward - 95%; referring doctor's signature - 100%; referring doctor's name and surname - 34%; name of responsible consultant - 91%; question to be answered - 25%. The patient's clinical background field was filled in 93%. However, these were more often than not incomplete and unable to fulfil their purpose.

**Conclusions:** There is ample room for change in current local practice.

### Introduction

The belief that radiologists are there to perform any investigation requested by medical practitioners/specialists is a misconception that needs to change. Clinical radiologists form part of a multi-disciplinary team. Their role is to aid other colleagues in reaching their diagnosis and, since the advent of interventional radiology, provide treatment for various conditions.

In order to achieve the above, it is imperative that radiologists are provided with adequately filled request forms. The Royal College of Radiologists clearly suggests that **ALL** forms should be adequately and legibly completed, thus avoiding any misunderstandings that may arise. Referring doctors should also state the reasons behind their referral thus enabling the radiologists to understand the clinical problem that they need to address using their expertise in the science of radiology.<sup>1</sup>

The importance of the clinical information that is provided is also clearly outlined in the United Kingdom's Department of Health's Ionising Radiation (Medical Exposure) Regulations (IRMER) 2000, which in Section 8.6.1 states that: "Regulation 5(5) requires the referrer to supply the practitioner with sufficient medical data, relevant to the medical exposure requested, to enable the practitioner to decide whether the exposure can be justified."<sup>2</sup>

No standard format for radiology request forms is available, and different organisations use their own personalised version. We set out to perform a process audit of the adequacy of completion of radiology request forms in St. Luke's Hospital, Malta, using the following as standard.<sup>3</sup>

### The Standard<sup>3</sup>

**ALL** submitted radiology request forms should contain the following information:

- The clinical background;
- The question to be answered;
- The patient's name, age, address and telephone number;
- The ward;
- The name and signature of the requesting doctor;
- The name of the consultant responsible for the patient's well-being.

**Ruben Depasquale** MD \*

Department of Orthopaedics,  
St Luke's Hospital, Gwardamangia, Malta  
Email: ruben@depasquale.wanadoo.co.uk

**Malcolm P Crockford** DMRD, FRCR

previously Department of Radiology,  
St Luke's Hospital, Gwardamangia, Malta

\*corresponding author

**Table 1:** Number of forms with completed fields (n=200)

<i>Form fields</i>	<i>Number</i>	<i>Percentage</i>
Complete in full	8	4%
Clinical background	185	93%
Question to be answered	50	25%
Patient's name and surname	200	100%
Patient's age	58	29%
Patient's full address	154	77%
Ward	189	95%
Name of referring doctor	67	34%
Referring doctor's signature	200	100%
Name of responsible consultant	182	91%

## Methods

In assessing local practice, we have reviewed 200 randomly selected request forms received by the radiology department, at St Luke's Hospital, in early September 2004. These were selected in a random manner by clerical staff so as to avoid bias. They included a balanced variety of requests for an array of examinations including Plain Radiography, Fluoroscopic Radiography, Ultrasound, CT and MRI. They included referrals from different departments both from a ward setting, as well as from the Out-patients clinics. Referrals from General Practitioners and Primary Health Care were not included.

For each form, we noted the presence or absence of adequate information in the appropriate field. We deliberately did not include the patient's telephone number in the audited data, as no space is allocated in the current request form used at St. Luke's Hospital.

A database of the various forms was subsequently created, and the results were compared to the above standard.

## Results

The standard clearly states that **ALL** radiology request forms should be adequately completed.

Our audit's data analysis revealed that **ONLY** 8 of the 200 forms reviewed were completed in full. Only the patient's name & surname and the referring doctor's signature were present in all forms. The ward was included in 189 forms, and the responsible consultant's name was evident in 182. The patient's full address was provided in 154 forms, the referring doctor's name in 67 and the patient's age in 58. A specific question to be answered was only encountered in 50 forms, and despite the clinical background field having been filled in 185 forms, these were more often than not incomplete and did fulfil their purpose (Table 1).

A chart depicting the percentages of completion of the various fields can be seen in Table 2.

**Table 2:** Percentage of forms with completed fields

<i>Form Fields</i>	<i>Value</i>	<i>Percent</i>
Patient's Name & Surname	200	100%
Referring Doctor's Signature	200	100%
Ward	189	95%
Clinical Background	185	93%
Name of Responsible Consultant	182	91%
Patient's Full Address	154	77%
Name of Referring Doctor	67	34%
Patient's Age	58	29%
Question to be answered	50	25%
Complete in full	8	4%

## Discussion

A multi-disciplinary approach to patient management is based on adequate communication between the various team members, in order to provide the patient with the best possible service.

Radiology request forms are essential communication tools used by doctors referring patients for radiological investigations. Their importance, however, as can be seen from the results elucidated by our audit, is highly underestimated.

The presence of incorrect, or even worse, the absence of patient demographic data and contact details may lead to serious errors in patient identification, and may render the need to recall or contact a patient an impossible task. The same applies to the inability of the radiologist to contact the referring doctor or the caring consultant for further discussion if the names of the above are not clearly documented on the request forms.

The Royal College of Radiologists suggests that all radiologist reports should address the questions posed by the referring doctors.<sup>1,3</sup> However, this can only be achieved by increasing the awareness of referring practitioners of the need of such specific questions, as well as the need for a full clinical picture to be provided in the request for radiological investigations. By knowing the patient's clinical background, and the query posed by the patient's caring professionals, the radiologist will be in a position to decide on the best radiological examination necessary, and subsequently combine the radiological findings with the clinical picture to reach a final or differential diagnosis. It is ultimately the full responsibility of the radiologist to ensure that the patient is not exposed to unnecessary radiation, in view of the harm that this may cause.<sup>2</sup>

We must realise that inadequate request form completion is not a problem present only in our country. Following an online search (using MEDLINE, PUBMED and EMBASE), for publications with content similar or related to our audit, we found no published articles. However, in a letter to the editor

G'Mangia, Malta.	
Imaging required:	ID Card No.: Patient's Surname: Patient's Name:
Date of Appointment: Time:	Address: (in full) Telephone No.: Consultant: Ward:
Clinical Background (in detail): Patient transport: Wheelchair Stretcher... Portable...	
FRONT	
Question answered: to be	
Requesting Name:	Doctor's Name: Bleep No.: Requesting Signature: Doctor's Signature:

  

Radiology Department - St. Luke's Hospital, G'Mangia, Malta.	
Radiographer's Notes:	
Radiologist's report:	
BACK	
Radiologist's Name:	Radiologist's Signature:

**Figure 1:** It would be necessary to repeat the audit 6 months following the implementation of the changes suggested above and 6-monthly thereafter.

by P. A. Nedumaran published in *The British Journal of Radiology*, the author states that following an audit entitled "Do the reports address the questions?" revealed that only 62% of hospital requests, 51.5% of A&E requests and 26.4% of GP requests had a specific clinical question.<sup>4</sup>

### Conclusion and Recommendations

Optional patient oriented care mandates that remedial action is taken in order to change the currently inadequate radiology referral process.

Discussions on the possible actions or changes that could be implemented in order to reach this goal, led to the following list of suggestions:

- An internal mail-shot to the medical superintendent, directors, consultants, senior registrars, registrars, SHOs and housemen elucidating the above findings and the risks they carry and stressing the need to change current practice.
- Instructions to radiological staff to return any inadequately completed forms at a stage BEFORE these are actually recorded in the department's database. Currently, with the exception of MRI request forms, elective requests pass through the normal appointments route and are not vetted by radiologists. On the other hand, urgent requests are vetted by radiologists prior to appointment being given.

Returning of request forms is to be done with great care in order to avoid any unwanted delays of urgent examinations and above all any patient suffering, whilst ensuring safe practice.

- Structuring a lecture entitled "How To Help The Radiology Department Help You.", that would be delivered to new medical staff at induction.
- Applying necessary changes to the current request forms, ensuring that adequate spacing is provided for the required fields.

A proposed version can be seen in Figure 1.

### References

1. Royal College of Radiologists. Making the Best Use of a Department of Clinical Radiology: Guidelines for Doctors. 5<sup>th</sup> Edition. London: RCR, 2003.
2. Department of Health, UK. The Ionising Radiation (Medical Exposure) Regulations 2000, Statutory Instrument No. 1059. London: HMSO, 2000.
3. Godwin R, de Lacey G, Manhire A, editors. Clinical Audit in Radiology, 100+ recipes. London: Royal College of Radiologists, 1996.
4. Nedumaran PA. Correspondence: Do the reports address the questions? Br J Radiol 2002;75:565-6