

## Review Article

# Problems with Fundus Requests in Clinical Practice: The Case of the University Clinics of Lubumbashi

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## Abstract

The first examination that comes to mind when talking about the ophthalmological repercussions of any condition or pathology, the Fundus (OF) is a frequent examination in daily clinical practice. He requests, in order to run smoothly and allow proper care of the patient, compliance with certain principles when formulating his request.

We conducted a longitudinal descriptive study of the OF request forms received in Ophthalmology from the University Clinics of Lubumbashi (UCL) during the period from October 1, 2018 to October 31, 2019. We found that out of 228 OF requests collected, only 1, 3% included all the information marked, 96% of it came from the UCL. While 57.9% came from Internal Medicine, 11.4% had no information on the service requesting it. Age was not mentioned in 44% of the requests and the clinic in 50% of the requests. There was no exam goal in 76.3% of the vouchers. But on 95% of the vouchers was marked the name of the requesting doctor and on 87.3% the signature of the requesting doctor. As seen above, there are many problems that ophthalmologists face during the course and in the interpretation of the results of this examination. Each parameter gives rise to a particular aspect of the problem. A popularization should be made to make known the principles of drafting of requests for OF requests and thus to improve the assumption of responsibility of the patient by a better cooperation between ophthalmologist and doctor requesting OF.

**Keywords:** Clinic; Request; Lubumbashi university clinics; Problems

## Introduction

The first examination that comes to mind when talking about the eyes is the essential examination in the follow-up of patients in daily clinical practice, both in ophthalmology and in other services. It is of great importance to the clinician when he knows how to formulate the request. It provides information on many general conditions that have an impact on the fundus, including high blood pressure, diabetes, sickle cell anemia, systemic inflammatory conditions, prematurity, rheumatism and many others [1,2]. The aim of our work is to determine the frequency of OF requests issued and those which are well developed, to identify the important and missing parameters of OF requests and to recall the importance of a request for a well-developed OF to improve thus the care of the sick.

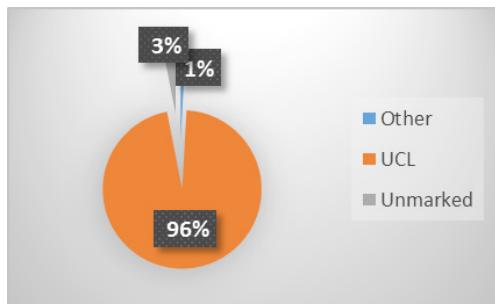
## Methodology

We conducted a longitudinal descriptive study for analytical purposes in which we collected all the requests for OF received in the Ophthalmology service of the University Clinics of Lubumbashi from October 1, 2018 to October 31, 2019 and noted the information on the name, the sex, age, patient's clinic, requesting service, purpose of the examination requested, name and signature of the requesting doctor. We dismissed OF requests that did not include information on when the requests were issued. The data was analyzed using Epi info software version 7.2.3.1 and Excel 2013, the input was made using Word 2013.

## Results

We collected 228 OF requests out of 5,556 consultations, a frequency of 4.1%. Of the 228 requests, only 3 OF requests included all the information marked, which represented a frequency of 1.3%.

### Applicant Hospital



**Figure 1:** Distribution of OF requests according to the requesting hospital.

We noted a high proportion of request forms from the University Clinics of Lubumbashi that is 96%.

### Requesting Service

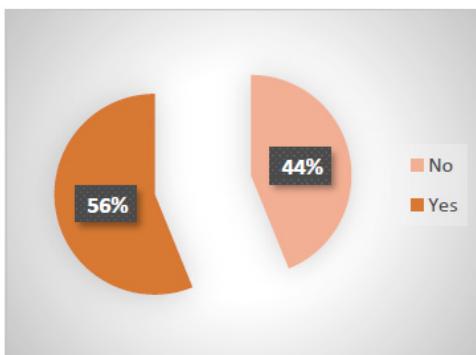
We noted in (Table 1) that Internal Medicine issued the most OF vouchers, 57.9%. However, we also noted that 11.4% of the vouchers had no information on the requesting service.

Service	Frequency	Percentage (%)
Surgery	35	15.4
Gyneco-obstetrics	10	4.4
Internal Medicine	132	57.9
Neuropsychiatry	6	2.6
Unmarked	26	11.4
Paediatrics	8	3.5
Resuscitation	10	4.4
Emergencies	1	0.4
Total	228	100

**Table 1:** Distribution of OF requests by requesting service.

### Age

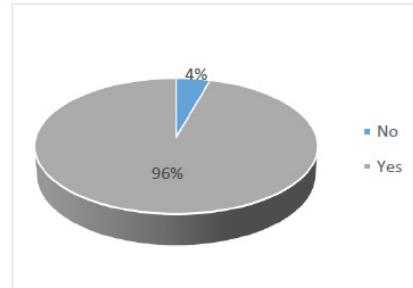
This (Figure 2) states that 44% of the requests did not contain information on the patient's age.



**Figure 2:** Distribution of OF requests by age.

### Gender

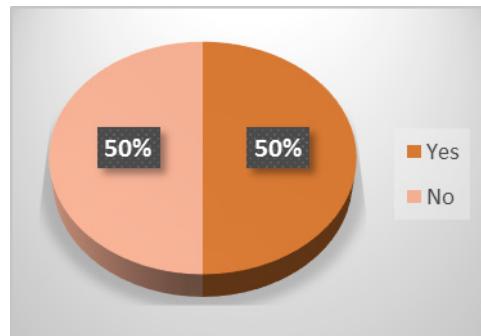
(Figure 3) shows that only 4% of vouchers had no information on the gender marked on it.



**Figure 3:** Distribution of requests by gender.

### Request Clinic

(Figure 4) shows that 50% of the requests for OF did not have a clinic mentioned on the examination vouchers.



**Figure 4:** Distribution of requests by clinic.

### Purpose of the Fundus

As shown in (Table 2), 76.3% of the OF requests issued had no details regarding the purpose of the examination and 15.8% were sent for an assessment of high blood pressure.

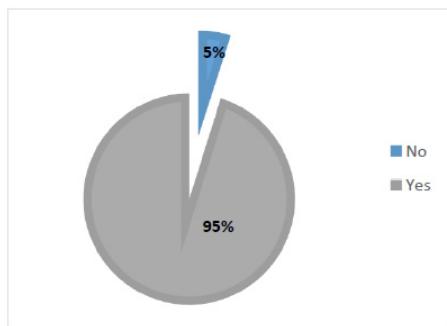
FO request purpose	Frequency	Percentage (%)
Unmarked	174	76.3
Marked :		
Complete assessment	1	0.4
Impact assessment	1	0.4
Diabetes Assessment	1	0.4
HBP Assessment	36	15.8
HBP and diabetic Assessment	4	1.9
Exclude brain edema	1	0.4
Exclude High Intra Cranial Pressure	1	0.4

Focus	3	1.3
Focus HBP	1	0.4
Lumbar puncture	4	1.9
Suspicion Hypertensive retinopathy	1	0.4
Total	228	100

**Table 2:** Distribution of requests according to the purpose of the OF request.

### Doctor's Signature

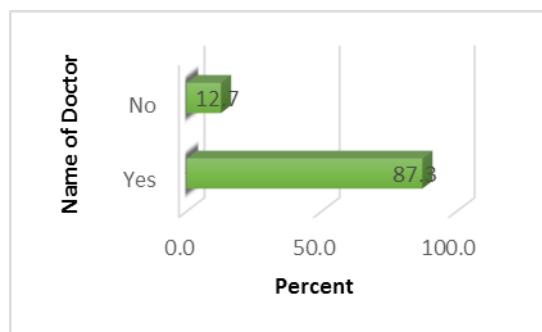
(Figure 5) shows that 95% of the requisitions included the doctor's signature.



**Figure 5:** Distribution of vouchers by doctor's signature.

### Name of Doctor

The majority of claim forms had the name of the physician listed on them, or 87.3% (Figure 6).



**Figure 6:** Distribution of requests by presence of doctor's name

## Discussion

### Frequency

Isolated OF represented a frequency of 4.1% of the consultations carried out. Frequency lower than that found by Diallo et al found in Bobo Dioulasso a frequency of 7.37% [2]. In our study, 1.3% of the requests were correctly prepared and all the information present. Our results remain lower than those found by Goni in Yaoundé with 8.6% of x-ray vouchers fully filled in while Gbazi in Cocody found 18% [3,4]. We think that our low

frequencies are explained by the fact that UCLs are not the only hospital structure to do OF in Lubumbashi but also that within UCLs, certain pathologies or pathological states do not always benefit from requests for OF for lack of knowledge or negligence.

### Applicant Hospital

In our study, we found that 96% of OF request forms came from the University Clinics of Lubumbashi. Probably because it is easier to refer patients within the same institution. Those not from UCLs probably came from hospital without ophthalmology service.

### Requesting Service

In our study, we obtained 11.4% of request forms without information on the requesting service. This is higher than the results found by Togola in Bamako who found 3% while the studies carried out by Moifo and Goni in Yaoundé revealed higher values, respectively 63% and 53.1%, by evaluating the conformity of the requests for x-rays [3-5]. This difference could be explained by the fact that the sample size and the frequency of X-ray requests are higher compared to OF requests.

### Age of the Patient

Application forms lacked precision on the age of patients in 44% of cases. This is significantly higher than Sonhaye et al, in whom only 4.4% of the vouchers lacked the age of the patients, while for N'Gadi et al. we have 84.6% [6,7]. These results are explained by the fact that at the time of patient registration upon arrival at the hospital, many did not know their age or had caregivers who did not have this information, either by underestimating the interest that brings this section by the applicant.

### Sex of the Patient

No information on sex was provided in 4% of cases with us. This is close to Sonhaye et al who had 2.9% of vouchers without information on sex at the time that Togola had found 94.2% absent [5,6]. We attribute this to the haste with which vouchers are often filled in an emergency.

### Patient's Clinic

The clinic of the patients was not specified in 50% of the cases for requests for OF whereas it was missing in 95.6% of the cases in the requests of radiographs as observed by Sonhaye and a little less in Moifo who found 69.2% of cases [2,3]. On the other hand Gbazi found results close to ours with 56% of lack of precision on the clinic [8]. We note that when issuing vouchers for examinations, whether OF or X-ray, the absence of items on the clinic is glaring and distressing. However, the clinic is important to guide the examiner on the aspects to be taken into account during the examination, to confirm or refute the probable clinical diagnosis.

### Purpose of the Review

The purpose of the review was absent in 76.3% of the requests made in our study, while it was absent in 98.5% of the

cases in Sonhaye and in 84.2% in Togola [3,5]. Remember that the purpose of an examination is to understand the concern of the requesting doctor, in order to respond to it if not to direct towards other explorations that may meet the requester's need and thus improve patient care. This lack of precision in the goal does not allow the patient to be oriented and can save the patient time and money.

#### **Doctor's Signature**

Our work revealed that 95% of the requisitions included the doctor's signature while Moifo only revealed 47.33% with signature. Gbazi, on the other hand, had a value close to ours with 98.8% of the signed requests [2,8]. Our values would be due to the fact that the UCL doctors accept responsibility for their requests and thus differentiate with a request from the trainees.

#### **Name of Doctor**

The majority of our requisitions had the name of the doctor on them, or 87.3%. Compared to Sonhaye in whom the name was only specified in 19.1% of cases whereas it was in 79% in Togola [3,5]. This allowed us once again to distinguish between the vouchers issued by the trainees and other medical personnel and those issued by the doctors.

#### **Conclusion**

At the sight of the results, the report is bitter. The OF application forms are not designed to emphasize the concern of the requesting doctor and to guide the ophthalmologist in the interpretation of lesions with a view to better management of the patient. Each parameter of the request form directs towards a particular aspect to explore: age, sex, provenance and clinic of the patient as well as the purpose of the request. The principles of developing OF vouchers taken into account for each examination request will improve the work of ophthalmologists and the multidisciplinary collaboration that the patient needs.

#### **Conflict of Interest**

The authors do not have any conflicts of interest in the data published in this article.

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