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Assessment of the Completeness of Laboratory Investigation Request Forms of the Outpatient Department in the District General Hospital, Matale

Dissanayake D.M.A.K.[1], Samarawickrama M.S.[1], Premadasa N.[1]

[1]Post Graduate Institute of Medicine, University of Colombo

Correspondence to:
Dr. D.M.A.K. Dissanayake

E-Mail
dr.asela.kumara1977@gmail.com

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Abstract

Introduction: In hospital settings, diagnosis and treatment rely on laboratory investigations. Investigation Request Forms (IRFs) serve as the primary means of communication between healthcare providers and laboratories. This study was conducted to assess the completeness of the laboratory investigation request forms of the Outpatient Department in the Tertiary Care Hospital in Matale District, Sri Lanka.

Methods: A descriptive cross-sectional study was conducted in May 2023 using a total of 350 IRFs submitted to the Outpatient Department laboratory on four randomly selected working days. A checklist was used to collect data on the essential components of the completeness of IRFs: patient identification details, clinical history, name of the investigation, and prescriber's details.

Results: None of the IRFs had complete information according to the criteria. Only 1.1% (n=4) contained all three patient identification details. All the IRFs (N=350) included the 'Name of the Investigation', but none included the clinical history. The majority (95.7%; n=335) did not have the 'Prescriber's identification'.

Conclusion and Recommendations: This study observed that the majority of the IRFs were incomplete, mainly the information on patient identification and clinical history. The introduction of standardized IRFs, electronic laboratory investigation prescriptions, continuous monitoring, and feedback mechanisms can be recommended to improve the completeness of IRFS.

Introduction

In hospital settings, diagnosis and treatment rely on laboratory investigations. Investigation Request Forms (IRFs) serve as the primary means of communication between healthcare providers and laboratories. Accurate and complete documentation in IRFs ensures effective communication between the healthcare providers and the laboratory staff, hence essential for safe patient care (1).

An IRF has to provide the patient's identification details, patient registration number issued by the hospital, the investigation requested, relevant clinical history, prescribing medical officer's identification, and the date of issuing the IRF (2). These elements are essential to identify the patient, understand the illness and necessity of the requested investigation, and ensure accurate communication and processing of the request. Therefore, the completeness of IRFs has a direct impact on the quality of diagnostic services, patient management, and overall healthcare outcomes. As the completeness of IRFs can be used to assess the pre-analytical phase of the laboratory process (3), it is a timely requirement to assess the completeness to identify the areas to improve the laboratory process (4). Many previous studies have identified that the IRFs are incomplete frequently, which may lead to errors causing patient safety issues (1). The objective of this study was to assess the completeness of the laboratory investigation request forms of the Outpatient Department in the District General Hospital, Matale.

Design

A descriptive cross-sectional study was conducted.

Methods

The study setting was the District General Hospital, Matale, which is the tertiary care hospital in the district. The study was conducted in May 2023. Out of the IRFs submitted to the Outpatient Department

laboratory, all the IRFs submitted on four randomly selected working days (N=350) were included in the study. Data on the completeness of the IRFs were collected using a checklist, which was developed to assess the completeness systematically focusing on essential components identified through a literature review (2) and expert opinion. Criteria for completeness included the presence or absence of the patient's full name, age, gender, investigation name, clinical history, prescribing medical officer's identification, OPD registration number, and date (2). Data was collected and recorded by the researcher. Data analysis was done using 'SPSS version 26'. Data were presented in frequencies and percentages. Ethical Approval was obtained from the Ethics Review Committee of the Postgraduate Institute of Medicine, University of Colombo. Administrative approval was obtained from relevant authorities prior to the data collection. This was a self-funded study, and there were no conflicts of interest.

Results

Table 1 presents the findings on the completeness of IRFs. None of the IRFs had complete information according to the criteria. Only 1.1% (n=4) contained all three patient identification details, i.e., the patient's full name, age, and gender. Even though all the IRFs (N=350) included the 'Name of the Investigation', none included the clinical history. The majority, 95.7% (n=335) did not have the 'Prescriber's identification'.

Discussion

Similar studies used the same criteria to assess the completeness of the IRFs (3). None of the IRFs had recorded completeness based on the criteria in this study in contrast to a similar study where completeness was observed in 1% of the IRFs (3). While the name of the investigation and OPD number were recorded in all the IRFs (N=350), none of the IRFs contained the clinical history (0%; n=0) and the patient's gender (1.1%; n=4). Since clinical history is important for the laboratory to interpret the requested investigation accurately (5), the absence of clinical history in all IRFs is an important observation in this study. This is similar to a study conducted in Kenya, where the clinical history was not written in 85.1% of the IRFs (3). This may compromise patient care and diagnostic accuracy. The absence of the identification of the prescriber in the majority of the IRFs (95.7%; n=335) pointed out the lack of accountability and difficulties in follow-up communication. These results highlighted the need for improved documentation practices to ensure comprehensive and accurate medical records, particularly in recording patient demographic details and clinical history.

Table 1: Completeness of Investigation Request Forms (N=350)

Criteria for the completeness	Written n (%)	Not Written n (%)
Full Name	149 (42.6)	201 (57.4)
Age	340 (97.1)	10 (2.9)
Gender	4 (1.1)	346 (98.9)
Name of the investigation	350 (100.0)	0 (0.0)
Clinical History	0 (0.0)	350 (100.0)
Prescriber's identification	15 (4.3)	335 (95.7)
OPD registration number	350 (100.0)	0 (0.0)
Date	231 (66.0)	119 (44.0)

Conclusion

This study observed that the majority of the IRFs were incomplete in the outpatient department of the District General Hospital, Matale. Even though the name of the investigation and the OPD registration number were written in all the IRFs, the most important information on patient identification and clinical history were missing.

Recommendations

The introduction of standardized IRFs and electronic laboratory investigation prescriptions with mandatory fields to be filled can improve documentation practices to ensure the effective communication of essential patient information. Continuous monitoring and feedback mechanisms can be recommended to improve the completeness of IRFS.

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