

## Original Research Article

## Evaluation of Fine Needle Aspiration Cytology (FNAC) Requisition Forms

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**Abstract:** Laboratory requisition form provides information about the laboratory test being requested for. They carry demographic data of patient, patient identification number, name of doctor, clinical findings, information about any other relevant test if done. Research has demonstrated that most laboratory errors occur in the preanalytical phase of testing. In view of the paucity of studies examining preanalytical errors, we evaluated our FNAC requisition forms and a retrospective study was conducted in department of pathology. All the FNAC requisition forms received during the period of January to August 2019 were retrieved from the archives and analyzed for completion of preanalytical data. Results were expressed in percentage and depicted in tabular form. In our study we have seen that patient name, age, sex, were mentioned in 100% of FNAC requisition forms which were most completely provided data, followed by patient IP number (99%), doctors signature (95%) and site of FNAC (95%). Patient occupation was mentioned in 2% of FNAC requisition forms, which was the least provided data, followed by patient contact number (7%), relevant investigations (24%) and address (26%). Out of 200 requisition forms only 2% were complete and 98% of the requisition forms had one or more missing data. As laboratory data influence medical diagnoses, incorrect or incomplete data provided to laboratory could significantly impart the success and cost of overall treatment.

**Keywords:** Preanalytical data, Preanalytical phase, FNAC requisition form, Laboratory, Medical audit, Quality.

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## INTRODUCTION

Medical laboratory requisitions and reports are used as link between physician, laboratory staff, and patient, on which approximately 60-70% of all decision about patient's diagnosis, hospital admission, treatment and discharge depends. Effective completion of these forms ensure the correct communication among them (Bodena D *et al.*, 2020).

Medical audit has been defined as quality improvement process that seeks to improve patient care and outcomes through systematic review of care against explicit criteria and implementation of change (Olayemia E *et al.*, 2011, Afolabi O A *et al.*, 2012).

Quality in clinical laboratories cannot be assumed by merely focusing on analytical aspects only. Pre and post-analytical processes are equally important for ensuring quality laboratory service. Research has demonstrated that most laboratory errors occur in the preanalytical phase (Adegoke O A *et al.*, 2011).

## EXPERIMENTAL

## SECTION/MATERIAL AND METHODS

This is a retrospective study conducted in the Department of Pathology. Two hundred (200) consecutive FNAC requisition forms received in the Department of Pathology, were audited for completion of preanalytical data such as patient's demographic details i.e., name, age, sex, occupation, contact number, hospital OP/IP number, present and past medical history, i.e., OP/IP number, clinical information, relevant investigations done, clinical diagnosis, requesting doctor name and signature and site from where FNAC to be done.

After analysing all these data the results obtained were converted to percentage (%) and depicted in tabular forms.

## RESULTS

Out of 200 FNAC requisition forms audited, only 2% of the forms were complete and 98% of the forms had one or more missing data.

Under section provided for patient demographic details, name, age, and sex of the patient were provided in 100% of FNAC requisition forms. Occupation of the patient was most incompletely provided data, i.e., only in 4(2%) requisition forms (Table-1).

Requesting doctor name and signature was provided in 178(89%) and 190(95%) FNAC requisition forms respectively. Clinical unit of the requesting doctor was mentioned in 164(82%) FNAC requisition forms (Table-2).

Patient clinical details and clinical diagnosis was provided in 178(89%) and 106(53%) FNAC requisition forms respectively. Detail of relevant investigations done was provided in 48(24%) requisition forms (Table-3). Site of FNAC was mentioned in 190(95%) of the request forms (Table-4).

**Table-1: Completeness of patient's demographic details**

Patient details	Number (n=200)	Percentage %
Name	200	100%
Age	200	100%
Sex	200	100%
Occupation	4	2%
Address	52	26%
Contact number	14	7%
IP/OP number	198	99%

**Table-2: Completeness of doctor's details**

Doctor's details	Number (n=200)	Percentage %
Name	178	89%
Signature	190	95%
Clinical ward/unit	164	82%

**Table-3: Completeness of patient's clinical details and relevant investigations**

Patient's clinical and investigation details	Number (n=200)	Percentage %
Clinical details	178	89%
Relevant investigations	48	24%
Clinical diagnosis	106	53%

**Table-4: Completeness of test requested.**

	Number (n=200)	Percentage %
Site of FNAC	190	95%

## DISCUSSION

Data provided in laboratory requisition forms influence 70% of medical diagnosis and impact significantly on the success and cost of patient treatment. (Nutt L *et al.*, 2008).

The laboratory analytical process is divided into pre-analytical, analytical, and post-analytical phases. Studies have shown that 50-70% errors that occur in pre-analytic stage may involve handling of laboratory request forms (Osimbo G O *et al.*, 2018).

In the studies done by E Olayemai *et al.*, and Osimbo GO *et al.*, patient address were provided in 52.2% and 89.5% of requisition forms which is more in comparison with the present study (26%). Patient clinical details was provided in 73.3%, 60%, and 35% of requisition forms in studies done by E Olayemai *et al.*, Osimbo GO *et al.*, and Priyadharisini *et al.*, respectively. These values were less in comparison with

the present study which is 89%. Clinical diagnosis was mentioned in 53% of requisition forms in present study, which is less in comparison to Adegoka OA *et al.*, (93.2%) and Priyadharisini *et al.*, (94.4%). Patient contact number was provided in 7% of requisition forms in present study. In the present study only 2% of the requisition forms were completely filled with all the relevant parameters provided in the FNAC requisition forms, which is consistent with the study done by Osimbo GO *et al.*, (Table-5). (Adegoke O A *et al.*, 2011, Osimbo G O *et al.*, 2018, Priyadharisini *et al.*, 2019).

Over recent years, medical laboratory practice has changed and developed beyond recognition with increase in the level and technological sophistication. Studies from different part of the world have shown deficiencies in filling of laboratory or radiology request forms. In considering the current emphasis on evidence based medicine incomplete data on request forms represent a significant problem for clinical laboratories

and different approaches have been taken to address this problem (Oyedeji O A *et al.*, 2015, Burnett L *et al.*,

2004, Bailey J *et al.*, 2005).

**Table-5: Comparative analysis**

	<b>Olayemai E <i>et al.</i>, 2011</b>	<b>Adegoka O A <i>et al.</i>, 2011</b>	<b>Osimbo G O <i>et al.</i>, 2018</b>	<b>Priyadharisini <i>et al.</i>, 2019</b>	<b>Present study</b>
Patient address	52.2%		89.5%		26%
Patient contact number	0%				7%
Patients clinical details	73.3%		60%	35%	89%
Patients relevant investigations				30.7%	24%
Clinical diagnosis		93.2%	55.5%	94.4%	53%
Complete data in requisition forms			2.3%	12.2%	2%

## CONCLUSION

The study demonstrates that the standard of completion of FNAC requisition forms are not up to the mark. The laboratory should organize orientation programs for doctors, especially newly appointed doctors and interns. Initiative has been taken to educate the MBBS students about the importance of documentation under new competency based medical education.

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