

## Original Research Article

## Evaluation of Completeness of Histopathological Requisition Forms Submitted to the Histopathology Section

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Received on 17.07.2019,

Accepted on 24.07.2019

**Abstract**

*Background:* Histopathological requisition forms are a mode of communication between clinicians and pathologists. Incomplete requisition forms can significantly impact the quality of histopathological reports. *Objective:* To determine the degree of completeness of the requisition forms with respect to demographic data and clinical data. *Materials and methods:* Histopathological requisition forms submitted to the department of Pathology, Gadag Institute of Medical Sciences (GIMS), Gadag from January to December 2018 were evaluated for the completeness of the forms. The data was entered in excel sheet and completeness was assessed by measuring the ratio/percentage of complete cases to total cases. *Results:* Out of 760 requisition forms, 524 (68.94%) were complete with respect to demographic data. Out of the total 760 forms, 252 (33.15%) were complete with respect to clinical data. Three (0.39%) forms were incomplete with respect to the age. Six (0.78%) forms were incomplete with respect to sex. Clinician's name was not mentioned in 104 (13.68%) forms. Five (0.65%) cases failed to mention outpatient/inpatient (OP/IP) number. Adequate clinical history and examination findings were not mentioned in 231 (30.3%) of forms and 74 (9.73%) of forms failed to mention clinical diagnosis. *Conclusion:* In the present study the level of completion of the requisition forms was suboptimal.

**Keywords:** Requisition forms; Histopathology.

**How to cite this article:**

Bhakti V Kulkarni, Basavaraj P Bommanahalli. Evaluation of Completeness of Histopathological Requisition Forms Submitted to the Histopathology Section. Indian J Pathol Res Pract. 2019;8(5):558-561.

**Introduction**

In today's world of clinicopathologic practice, the clinicians and pathologists are facing increasing

therapeutic demands. Histopathological requisition forms serve both as a communication between peers and as a letter of contract stating what the clinician wants from pathologist regarding patient.<sup>1</sup> They also serve the function of disease identification,



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documentation of surgical procedure and release of tissue for research.<sup>2</sup>

Just like every laboratory procedure which is divided into preanalytic, analytic and post analytic stages, histopathology has all stages with short but very important preanalytical phase.<sup>3</sup> Adequate clinical information helps to define the need for and nature of special studies that can be performed.<sup>4</sup> It also permits inappropriate investigations to be discarded and permits the pathologists to narrow down the differential diagnoses.<sup>5</sup> It has long been recognised that the elimination of outdated, redundant and unnecessary laboratory work can greatly improve standards.<sup>6</sup>

There is a perception among histopathologists that clinicians do not understand the working of histopathology department, based upon the poor quality of requests received for histopathological investigations.<sup>5</sup> Hence, this study is aimed at assessing the completeness of the requisition forms.

## Materials and methods

This is a retrospective observational study. Histopathological requisition forms submitted to the department of Pathology, Gadag Institute of Medical Sciences (GIMS), Gadag from January to December 2018 were evaluated for the completeness of the forms. A total of 760 requisition forms were assessed for the adequacy of information.

Each requisition form was assessed for the presence and completeness of information regarding:

- (1) Demographic data like patient's name, age, sex, inpatient/outpatient identification number, name and department-unit of the referring clinicians.

- (2) Clinical data like clinical history and findings, clinical diagnosis, nature of specimen and other investigations.

### Inclusion criteria

All the requisition forms received to histopathological section along with the specimen.

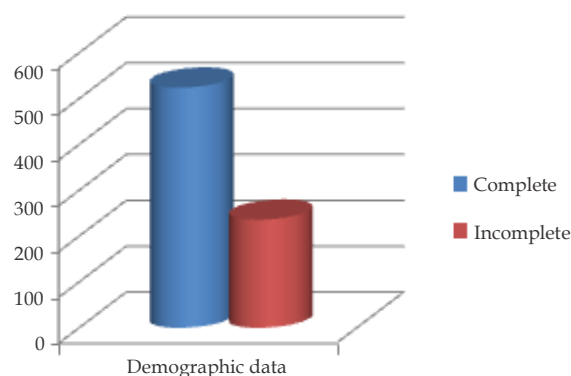
### Exclusion criteria

The cytological requisition forms pertaining to fluids, fine needle aspiration cytology (FNAC) and haematological requisition forms were excluded from the study.

The data was entered in Microsoft excel sheet and completeness was assessed by measuring the ratio/percentage of complete cases to total cases.

## Results

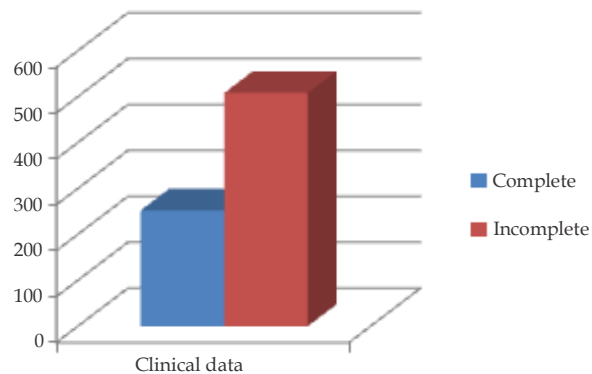
Out of 760 requisition forms, 524 (68.94%) were complete and 236 (31.05%) were incomplete with respect to demographic data (Graph 1). Out of 760 requisition forms, 252 (33.15%) were complete and 508 (66.85%) were incomplete with respect to clinical data (Graph 2). All the forms were complete with respect to name. Three (0.39%) forms were incomplete with respect to the age. Six (0.78%) forms were incomplete with respect to sex. Five (0.65%) cases failed to mention OP/IP number. Clinician's name was not mentioned in 104 (13.68%) forms. Department with unit of the referring clinician was not mentioned in 177 (23.2%) cases (Table 1). Adequate clinical history and examination findings were not mentioned in 231 (30.3%) of forms. Seventy four (9.73%) forms failed to mention clinical diagnosis. (Table 2)



**Graph 1:** Information pertaining to demographic data

**Table 1:** Adequacy of information pertaining to demographic data in histopathological requisition forms

Demographic data	Complete	Incomplete
Name	760 (100%)	0
Age	757 (99.6%)	3 (0.39%)
Sex	754 (99.2%)	6 (0.78%)
IP/OP Number	755 (99.3%)	5 (0.65%)
Doctor's name	656 (86.3%)	104 (13.68%)
Dept-Unit	583 (76.7%)	177 (23.2%)

**Graph 2:** Information pertaining to clinical data**Table 2:** Adequacy of information pertaining to clinical data in histopathological requisition forms

Clinical entity	Complete	Incomplete
Clinical history/findings	529 (69.6%)	231 (30.39%)
Clinical diagnosis	686 (90.2%)	74 (9.73%)
Nature of specimen	731 (96.1%)	29 (3.81%)

## Discussion

Requisition forms are an integral part of histopathology. Proper communication between clinicians and pathologists is very essential to cater to the needs of the patient.

In the present study, we observed that the histopathology requisition forms were complete in 524 (68.94%) of cases with respect to demographic data. The presence of demographic data helps in patient identification which aids in searching the previous and other relevant investigations of the patient.<sup>3</sup> Hence, we can correlate with the cytological and other relevant lab investigations of the patient.

In our study, we observed that the requisition forms were complete in 252 (33.15%) cases with respect to clinical data. In a study done by Sharif *et al.*,<sup>7</sup> clinical details were absent in 34% of cases. Absence of clinical information can lead to unnecessary additional tests and increased turnaround time of the reports.

In the present study we observed that name of the patient was mentioned in all the cases. This is in concordance with a study done by Nwafor *et al.*<sup>3</sup>

In our study, we observed that age was not mentioned in 3 (0.39%) cases. A study done by Sharif *et al.*<sup>7</sup> showed that age was not mentioned in 5.8% of cases. We observed that sex was not mentioned in 6 (0.78%) of cases. In a study done by Sharif *et al.*<sup>7</sup> they observed that sex was not mentioned in 14% of cases. Age and sex will help in differential diagnoses of lesions as certain pathologies are prevalent in particular sex and age group.<sup>3</sup>

In the present study, 5 (0.65%) cases had no mention of OP/IP number. In a study done by Atanda *et al.*<sup>1</sup> OP/IP number was not mentioned in 39% of cases. Not mentioning the OP/IP number or age may lead to errors in identification of patients whenever there are patients of same name.

We observed that 104 (13.68%) cases had no mention of clinician's name. In a study done by Sharif *et al.*<sup>7</sup> Clinician's name was not mentioned in 77% of cases. Clinician's name will help in obtaining

additional clinical information if required. Also pathologists can convey the urgent reports to the clinician.<sup>8</sup> It was observed that 177 (23.2%) cases had no mention of department with unit of the clinician.

We observed that 231 (30.39%) cases had no proper patient's history and clinical findings. In a study done by Nakleh *et al.*,<sup>9</sup> clinical history was not mentioned in 2.4% of cases. Adequate clinical history will help the pathologists to narrow down the differential diagnoses and decrease the turnaround time and thus aiding in early treatment of patients.

In the present study, clinical diagnosis was not mentioned in 74 (9.73%) of cases. In a study done by Nwafor *et al.*,<sup>3</sup> clinical diagnosis was not mentioned in 8% of cases. The reason why clinicians do not mention the provisional/clinical diagnosis is that it will bias the pathologists. As a matter of fact pathologists are clinicians first and require clinical information to make the diagnosis.<sup>3</sup> We also observed that nature of specimen was not mentioned in 29 (3.81%) of cases. Not mentioning of nature of specimen and site of the lesion will be hazardous, whenever lesions are multiple and whenever follow up is essential.

Special attention is to be needed to the preanalytical phase to ensure standards of high quality. Every possible event during the course of handling the specimen is to be taken into consideration to minimise the preanalytic errors. It is the responsibility of healthcare providers to give complete demographic and clinical information, in a clear and legible handwriting, avoiding the abbreviation as far as possible. Another way of achieving this is by shifting to electronic request forms with mandatory fields.<sup>10</sup>

## Conclusion

We observed that the level of completion of the requisition forms was suboptimal. Failure to provide the requisite information prevents the pathologists to assess the sample properly and also increases the turnaround time of the report. Greater emphasis is to be made on bringing awareness among clinicians of all grades of their primary responsibility for providing adequate information on requisition forms. This can be achieved through

periodical education programs, discussions and by giving and receiving proper feedback. Formulation of reject requisition policy is also need of the hour to decrease the turnaround time.

## References

1. Atanda AT, Raphael S. Role of surgeons in determining outcome of histopathology specimens. *Niger J Surg.* 2013;19:68-72
2. Lester SC. Requests for pathologic evaluation. In: Lester SC editor. *Manual of Surgical Pathology.* 3<sup>rd</sup> ed. Philadelphia, United States of America, Elsevier Saunders; 2010.p.1-44
3. Nwafor CC, Obioha K. Preanalytic determinants of surgical pathology practice in Uyo. *Saudi J Health Sci.* 2018;7:33-8
4. Rao S, Masilamani S, Sundaram S, *et al.* Quality measures in pre-analytical phase of tissue processing: Understanding its value in histopathology. *J Clin Diagn Res.* 2016;10(1): EC07-11. Doi:10.7860/JCDR/2016/14546.7087
5. Burton JL, Stephensen TJ. Are clinicians failing to supply adequate information when requesting a histopathological investigation? *J Clin Pathol.* 2001;54:806-8
6. Gambino SR. The problem of outdated, redundant or unnecessary laboratory tests: laboratory tests: laboratory triage, a suggested solution. *Can J Med Technol.* 1969;31:5-8
7. Sharif MA, Mushtaq S, Mamoon SJ, *et al.* Clinician's responsibility in pre-analytical quality assurance of histopathology. *Pak J Med Sci.* 2007;23(5):720-3
8. Nakleh RE, Gephardt G, Zarbo RJ. Necessity of clinical information in surgical pathology: a College of American Pathologists Q-Probes study of 771,475 surgical pathology cases from 341 institutions. *Arch Pathol Lab Med.* 1999;123:615-9
9. Nakleh RE, Zarbo RJ. Surgical pathology specimen identification and accessioning: a College of American Pathologists Q-Probes study of 1,004,115 cases from 417 institutions. *Arch Pathol Lab Med.* 1996;120(3):227-33
10. Kansay S, Verma M. Evaluation of request forms received in blood bank and biochemistry laboratory in a teaching hospital in North India: A comparative study of preanalytical errors. *J Nat Accred Board Hosp Healthcare Providers.* 2016;3:20-6