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# AUDIT OF DOCUMENTATION PRACTICES IN CERVICAL PAP TEST REQUISITION FORMS RECEIVED IN A TERTIARY CARE CYTOPATHOLOGY LABORATORY

Pathology

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## ABSTRACT

**Background:** Pap smear cytology remains a cornerstone of cervical cancer screening, and its diagnostic accuracy depends not only on specimen adequacy and slide interpretation but also on the completeness of clinical information provided in laboratory requisition forms. Critical details such as patient demographics, menstrual history, prior cytology results, and relevant clinical findings help cytopathologists correctly interpret cellular changes.**Objective:** To assess the importance of completely and accurately filled Pap smear requisition forms for proper diagnostic evaluation. Materials and method: A retrospective cross-sectional study where all the original laboratory requisition forms received for Pap tests at the cytopathology unit of Shija Academy of Health Sciences, Imphal, Manipur, over a period of 10 months were retrieved, and completeness of clinical details and various other parameters were assessed along with the clarity of the documentation.**Results:** All Pap test LRFs consistently included patient details—name, age, gender, and unique identification number. However, clinical details and clinician-related information were largely absent in a significant proportion.**Conclusion:** Completely filled in Pap test LRFs are crucial for accurate cytologic diagnosis and effective patient management.

## KEYWORDS

Cytopathology Laboratory, Pap Test, Laboratory Requisition Form

## INTRODUCTION:

The necessity for close cooperation between clinicians and pathologists was clearly articulated as early as 1908 by Stow, who emphasized in his refined prose the importance of "the correlation of clinician, pathologist, and layman" [1]. Despite its importance, limited data exist regarding the completeness of Papanicolaou test requisition forms in resource-limited tertiary care settings. Concerns persist regarding the sufficiency of clinical information on test request forms, as some physicians fail to provide these details either because they are unaware of their significance or because of limited time [2]. To strengthen clinico-pathological communication, pathologists have a duty to inform clinicians of their critical role that complete and relevant clinical details play in achieving the most accurate interpretation of laboratory specimens [3]. However, a comprehensive review of the available literature revealed only a few reports addressing the adequacy of clinical data provided on Pap test forms [4, 5].

The accreditation criteria for medical laboratories established by the National Accreditation Board for Testing and Clinical Laboratories (NABL) specify that gynecological cytology request forms should include details such as menstrual phase, hormonal status, and prior surgeries. However, NABL does not define specific sample rejection criteria for Pap tests [6]. The Bethesda System (2014) for Reporting Cervical Cytology also emphasizes that cervical smear findings should be interpreted in the context of the clinical information provided on the request form [7].

This study aims to evaluate the completeness of Pap test laboratory requisition forms and identify the information most frequently omitted and highlight the importance of thoroughly completing these requisition forms.

## Materials and method:

This is a retrospective cross-sectional study carried out in the Cytopathology Laboratory, Department of Pathology, Shija Academy of Health Sciences. A total of 204 laboratory requisition forms submitted for Pap test examinations from January 2025 to October 2025 were retrieved from the laboratory records for analysis.

The LRFs were reviewed for the presence of specific parameters, which were categorized into patient details, clinician details, and clinical information. Patient details included name, age, and unique patient identification number, while clinician details comprised the referring department and unit, physician's name, signature, and contact number.

The clinical information included signs and symptoms, examination findings, provisional diagnosis, menstrual cycle history, last menstrual period (LMP), and prior investigations or surgery.

In addition to evaluating the completeness of the forms, the clarity and readability of the recorded information were assessed, including handwriting legibility and the use of abbreviations.

Data were entered into Microsoft Excel and analyzed using descriptive statistics to determine the frequency and percentage of Pap test LRFs with complete and missing information for various parameters, while ensuring patient confidentiality throughout the study.

## RESULTS:

A retrospective study of 204 Pap test LRFs was analyzed for a period of 10 months. Complete documentation of patient identifiers—name, age, gender, and unique identification number—was observed in all Pap test laboratory requisition forms. In contrast, while the referring department was invariably noted, the departmental unit was not specified in any of the forms . While the referring consultant's name was missing in only 1.47% of cases, clinician signatures were absent in 42.15% of the forms, and contact numbers were not documented in any forms (Table 2).

The LMP was documented in only 64 out of 204 forms (31.37%) [ Table 1]. Many of the forms did not include clinical symptoms (50.9%), and only 100 forms (49.01%) mentioned the clinical examination findings (per vaginum and per speculum) [ Table 2].

In 53.9% of the forms, no clinical diagnosis was provided, whereas the remaining forms (46.1%) documented diagnoses including amenorrhea (5%), pyometra (1%), postmenopausal bleeding (10.7%), candidiasis (5.3%), UV prolapse with secondary cystocele (1%), cervix hypertrophy with erosion (3.4%), chronic cervicitis (10%), pelvic inflammatory disease (6.3%), dyspareunia (2.4%), and post hysterectomy bleeding from the vault (1%).

Documentation of other relevant investigations was present in only 16 forms (7.9%). The most frequently missing parameters were LMP (68.6%), clinical diagnosis (53.9%), and relevant previous investigations (92.1%) [ Table 2].

Legible and easily interpretable handwriting was observed in only 196 forms (96%) of the forms, while 16 forms (7.8%) contained unacceptable abbreviations or non-standard short forms [ Table 3].

**Figures and tables:**

**Table 1. Parameters on Pap test LRFs (n=204)**

| Information | Parameter assessed | No of forms with incomplete data | No of forms with complete data |
|---|---|---|---|
| Patient | Name | 0 | 204 |
| | Age | 0 | 204 |
| | Gender | 0 | 204 |
| | Patient identification no | 0 | 204 |
| Clinician | Department | 0 | 204 |
| | Department unit | 204 | 0 |
| | Clinician name | 3 | 201 |
| | Clinician signature | 86 | 118 |
| | Clinician contacts no | 204 | 0 |
| Clinical | LMP | 140 | 64 |
| | Clinical symptoms | 104 | 100 |
| | Clinical examination | 116 | 88 |
| | Clinical diagnosis | 110 | 94 |
| | Relevant investigation | 188 | 16 |
| Overall percentage | | 40.4% | 59.6% |

**Table 2. Percentage distribution of the data variables in Pap test LRF's**

| Name of the variable | Percentage of variables absent | Percentage of variables present |
|---|---|---|
| Name | 0% | 100% |
| Age | 0% | 100% |
| Gender | 0% | 100% |
| Patient identification no | 0% | 100% |
| Department | 0% | 100% |
| Department unit | 100% | 0% |
| Clinician name | 1.4% | 98.6% |
| Clinician signature | 42.1% | 57.9% |
| Clinician contacts no | 100% | 0% |
| LMP | 68.6% | 31.4% |
| Clinical symptoms | 50.9% | 49.1% |
| Clinical examination findings | 56.8% | 43.2% |
| Clinical diagnosis | 53.9% | 46.1% |
| Relevant investigation | 92.1% | 7.9% |

**Table 3. Clarity of data on Pap test LRFs (n=204)**

| Parameters | Number of LRFs | Percentage of LRFs |
|---|---|---|
| Non understandable handwriting | 8/204 | 3.9% |
| Use of abbreviations | 16/204 | 7.8% |

## DISCUSSION:

An enduring tenet of pathology is that accurate interpretation of cytological specimens relies not only on microscopic findings but also on the availability of relevant clinical information [8]. Since laboratory investigations influence approximately 70% of clinical diagnoses, they serve as a key determinant of both treatment outcomes and healthcare costs [9]. Inadequacies in laboratory requisition forms represent a major source of pre-analytic errors, predominantly arising from incomplete clinical and patient information [10].

In our present study, 204 laboratory requisition forms were evaluated across multiple parameters [Table 1]. Overall, 59.6% of LRFs were filled out completely, and 40.4% were incomplete. Only the patient's name, age, patient identifier, and department in all the LRFs evaluated have 100% completion, indicating good compliance with basic documentation requirements.

The clinician's name and department were documented in 98.6% and 100% of cases, respectively, in our study, which is comparable to the findings of Sanskrithi G et al. [11], which documented 96.9% and 99.4%, respectively. The most frequently missing clinician-related detail was the departmental unit and clinician contact no., 100% each, followed by clinician signature, which was missing in 42.1% in our study [Table 2]. Lack of contact details affects the timely communication of critical results to the clinicians in addition to the precious time of the laboratory.

In the present study, the last menstrual period was not documented in 68.6% of LRFs, indicating a substantial deficiency in clinical information. Although this proportion is lower than that reported in a government tertiary hospital-based study in Tirupati, India (95.5%), the omission rate remains unacceptably high [11]. Evidence indicates that the timing of the last menstrual period can impact the accuracy of Pap smear findings, especially among women with persistent cervical intraepithelial neoplasia [12]. Nevertheless, failure to record LMP can significantly affect the interpretation of cytological findings, particularly gynecological specimens, thereby impacting diagnostic accuracy.

In our study, clinical diagnosis was mentioned in only 46.1% of the forms, which is closely aligning with the 41.6% reported in another study by Shivali Sehgal [13]. Clinical symptoms and clinical examination findings were documented in 49.1% and 43.2% of LRFs, respectively, in our study [Table 2], reflecting suboptimal recording of essential clinical details. This finding may be attributed to the fact that the majority of Pap smears were submitted for routine screening; however, inadequate documentation may also be due to factors such as time constraints in busy clinical settings, lack of awareness regarding the importance of detailed clinical information, or lack of structured requisition formats. It remains essential to document any clinical symptoms, as well as findings from per vaginum and per speculum examinations on the requisition form, even in the absence of abnormal findings.

It is also important to document additional clinical details in LRFs, including hormone therapy, birth control pill usage, pregnancy status, previous Pap findings, hysterectomy, IUD, abnormal bleeding, history of radiation or any malignancy, and any relevant investigation details [14]. The use of birth control pills mimics the effects of estrogen and progesterone, leading to an increase in the thickness of the cervical mucus plug [15]. Such information assists cytopathologists in forming accurate interpretations, thereby reducing the likelihood of false-negative or false-positive results. In our study none of the LRFs documented the use of hormonal therapy.

A study demonstrated that an educational intervention to healthcare providers with particular emphasis on providing relevant clinical details on the LRF, resulted in a significant improvement in quality indicators in the biochemistry laboratory [16]. Laboratories can adopt strategies suited to their resources to address the lack of information, with computerized entry and integration with the laboratory information system being an effective approach. Dogether et al. [17] recommended the use of electronic-based LRFs, as they found electronic forms to be more accurate, clearer, more complete, and easier to understand than paper-based forms.

## CONCLUSION:

This study evaluated laboratory requisition forms with a focus on identifying specific errors and assessing the completeness of clinical information. The findings highlight that a substantial proportion of forms lacked essential information, particularly LMP (68.6%), clinical history (50.9%), clinical examination findings (56.8%), provisional diagnosis (53.9%), and radiological findings (92.1%). These gaps hinder diagnostic accuracy and laboratory efficiency. Addressing these issues requires implementation of standardized forms, staff training on proper form completion, and the adoption of electronic requisition systems to ensure completeness, reduce errors, and improve overall patient care.

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