SCIENTIFIC ARTICLE

Do we provide enough information to histopathologist to receive a quality report back? Preliminary analysis of an audit to enhance the clinical details provision to pathology department in a peripheral hospital

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Abstract

Introduction

Adequate clinical details should be provided to histopathologist to obtain a quality report. We experienced shortcomings in histopathology reporting due to deficiencies in patient detail provision.

Method

Retrospective analysis of 100 histopathology specimen forms sent from a surgical unit of Base Hospital Panadura was done. After identifying deficiencies new request form including patient demographic details, contact number, clinical details, relevant blood and biochemical investigation results, clinical diagnosis, space for a line diagram of the specimen with orientating stitches if possible and contact details of the person filled the form, was developed(Image 01). 100 new format forms were prospectively analysed to identify a change.

Results

Conventional forms designed for biochemical studies(Health 350) had been used as histopathology specimen forms as well. Percentages of properly written details were as follows; Patient demographic data -87%, clinical history- 42%, relevant biochemical results-8%,radiological findings-2%,clinical diagnosis -2%. Orientation or a line diagram of the specimen was not mentioned in any forms. After introduction of new format details received were as follows; demographic data -100%, clinical history- 100%, relevant biochemical results-88%, radiological findings-90%, clinical diagnosis -96%. The differences were statistically significant. Line diagram with orientation was included in all relevant specimens.

Conclusion

Considerable deficiency in clinical detail provision with conventional forms was noted in our cohort. The simple intervention of introduction of a spaced, well-formatted request form helped to overcome that deficit. This could be implemented in other hospitals as well.

Introduction

Histopathology helps in establishing a diagnosis, staging disease and deciding on postoperative adjuvant therapy. Therefore the accuracy of the histopathology reporting is crucial.

A study done by Cross at al has shown that the informational content with regards to breast and colon cancer pathological reports have been increased significantly throughout 1940 to 1990 [273% rise in the number of items of information]. They have attributed this increase either to clinicians demand for more specific information or to the introduction of more detailed systems of staging and prognostication of breast and colonic tumours[1].

The histopathologist does not encounter patients directly. The histopathology request form is their first contact with the patient. Thus they solely depend on clinical details provided by clinicians when they handle specimens. Therefore providing adequate and relevant clinical details to the histopathologist is a must.

Burton at al has conducted a study in the UK to evaluate over two thousand request forms sent for histopathology. They have found that clinical details were inadequate in 6.1 % of cases and frequently the contact details of the sender were lacking [2].

A similar observational study has been carried out in Pakistan to evaluate the adequacy of information provided by clinicians when requesting a histopathology investigation. Out of 500 request forms, clinical history was missing in over one-third of the forms and requesting clinician or any contact information was not mentioned in 77 % of the forms [3].

One local study has been carried out to evaluate the quality of histopathology reports in colorectal cancer. They have found that introducing a proforma for reporting, improved the

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quality of the final histology report [4,5]. But local studies on the quality of the clinical details provided to histopathologists is scarce.

No common histopathology form is available for all hospitals. Institution-based formats ara available in some of the teaching hospitals but most of the peripheral hospitals lack such a facility.

Methodology

Retrospective analysis of the clinical details of 100 traditional request forms provided to the histopathology department of the base hospital Panadura by a surgical unit was carried out. There was no designated histopathology request form. The health 350 form which is for routine blood investigations had been using as a request form to send histology specimens as well [Figure 1]. Therefore a new request form was designed after identifying the key deficiencies in the clinical information provision [Figure 2]. After drafting the new format, it was introduced to the surgical team and the nursing staff of the theatre and endoscopy units. Analysis of the information of the second form was started after two weeks of piloting this format.

The clinical details of 100 new formats were prospectively analysed and compared with the previous results. Two sample t-test was used to identify a significant difference.

This evaluation will be done again in 6 months to assess the long term effectiveness of the new format

Results

Out of 100 forms analysed 62 % of the specimens had been sent for histology and the rest for cytology. Percentages of properly written details were as follows; patient demographic data -87%,clinical history - 42%,relevant biochemical results - 8%,radiological findings - 2%,clinical diagnosis - 2%.

No significant difference was found between histology and cytology specimen forms. A line diagram of the specimen with an orientation guide was not found in any of those 100 forms. Of these forms, 67% were labelled as "need further clarifications" by the pathology department. They had to contact the surgical team again to clarify the missing details, causing a further delay of the final reports.

After the introduction of the new format, the above parameters were analysed again and compared.

Parameter	Percentage with old format	Percentage with new format	*p* value
Complete patient demographic data	87.0	100.0	0.0002
Clinical history	42.0	99.0	< 0.0001
Relevant biochemical investigations findings when indicated	8.0	88.0	< 0.0001
Relevant radiological investigations findings when indicated	2.0	92.0	< 0.0001
Probable clinical diagnosis	2.0	96.0	< 0.0001

Table 1 . A line diagram with orientation stitches marked was found in all relevant specimens. The need for contacting the surgical team for further clarifications has been significantly reduced to 5 %[$p < 0.0001$].

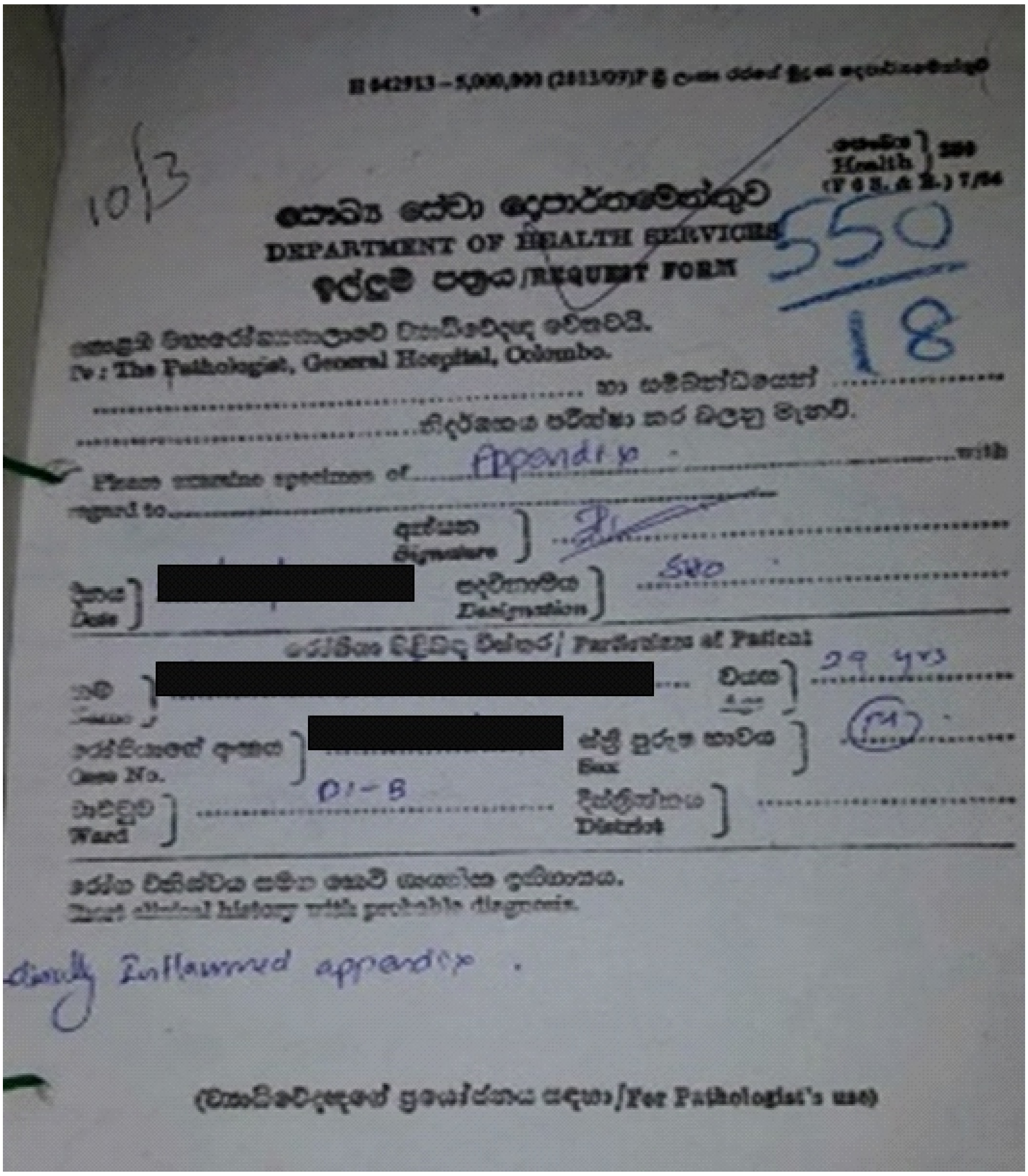
Discussion

Significant lapses were found in providing clinical history and investigation results which are relevant to pathologists. The probable clinical diagnosis was not mentioned in the majority of the traditional forms. Histopathology department had to contact the clinicians frequently for further clarifications as the information were inadequate.

The designing of the new format was based on the findings of the initial survey. After identifying the gaps in the clinical information, relevant questions were added to the new form. Size of the health 350 form is less than a quarter of an A4 sheet and there is hardly any space to write the clinical details. The new form was designed to the size of an A4 sheet. Adequate spaces were kept to include patient demographic details, contact number, clinical details, relevant blood and biochemical investigation results and clinical diagnosis

A separate space for the line diagram of the specimen with the orientation stitches is a novel element included. We referred few histopathology request forms from UK hospitals and local teaching hospitals but this element was not included in any of them [6]. Histopathologist found that it is very convenient for them to have this piece of information. After introducing the new format, provision of important clinical details has significantly improved.

Limitations of the study include that this is a preliminary analysis of the new format which has shown some promising results. However longterm effectiveness of this format has to be assessed and will be carried out after 6 months. Improvement of the quality of histopathology reports after introducing the new format has not been evaluated in the current study. That will be another good indicator of the value of the new histopathology request form and will be assessed as a separate study.



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DEPARTMENT OF HEALTH SERVICES

550/18

ඉල්ලුම් පත්‍රය/REQUEST FORM

To : The Pathologist, General Hospital, Colombo.

Please examine specimen of Appendix with regard to

Signature

Date [redacted]

Designation SHO

Particulars of Patient

Name [redacted]

Age 29 yrs

Case No. [redacted] 01-B

Sex (M)

Ward

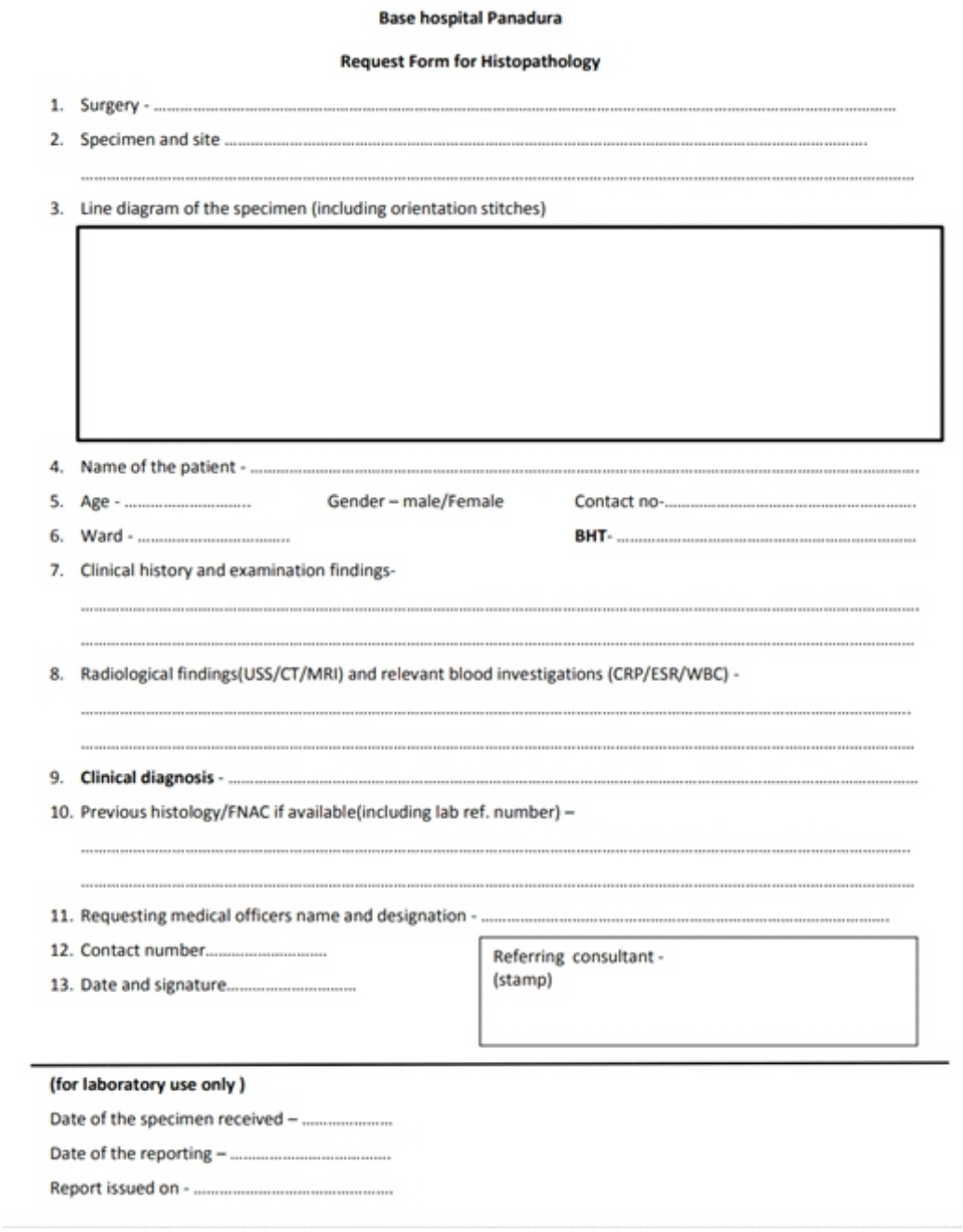
District

Short clinical history with probable diagnosis.

clinically Inflamed appendix.

(For Pathologist's use)

Figure 1. Health 350 request form



Base hospital Panadura

Request Form for Histopathology

1. Surgery - .....
2. Specimen and site .....

   .....
3. Line diagram of the specimen (including orientation stitches)

4. Name of the patient - .....
5. Age - ..... Gender – male/Female Contact no-.....
6. Ward - ..... **BHT**- .....
7. Clinical history and examination findings-

   .....

   .....
8. Radiological findings(USS/CT/MRI) and relevant blood investigations (CRP/ESR/WBC) -

   .....

   .....
9. **Clinical diagnosis** - .....
10. Previous histology/FNAC if available(including lab ref. number) –

    .....

    .....
11. Requesting medical officers name and designation - .....
12. Contact number.....
13. Date and signature.....

Referring consultant -
(stamp)

(for laboratory use only)

Date of the specimen received – .....

Date of the reporting – .....

Report issued on - .....

Figure 2. New histopathology request form

All authors disclose no conflict of interest. The study was conducted in accordance with the ethical standards of the relevant institutional or national ethics committee and the Helsinki Declaration of 1975, as revised in 2000.

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