

# Customer Satisfaction in Histopathology: A Quality Control Survey

## Histopatolojide Memnuniyet: Bir Kalite Kontrol Anketi

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### Öz

**Amaç:** Müşteri memnuniyeti anketleri, performans değerlendirmek için kullanılan rutin araçlardır. Anketler hastanelerde hekim ve hasta memnuniyetini kontrol etmek için de kullanılmaktadır. Dış yeterlilik testi, laboratuvar çalışanlarının ve ekipmanlarının güncel olduğunu ve doğru sonuçlar verdiğini tespit ederken, doktor anketleri yoluyla elde edilen kurumlar için uygun iş akışının ve rehberlerin tasarlanmasına yardımcı olur.

**Gereç ve Yöntem:** Anket toplam 15 soru ile online olarak yapıldı. Anket bağlantısı elektronik olarak Hamad sağlık kurumundaki (HMC) tüm Danışman ve Uzman hekimlere e-posta yoluyla gönderildi. Yaklaşık 3500 e-posta gönderildi, ancak iki ay içinde yalnızca 105 anket dolduruldu. Anket, histopatoloji hizmetlerinin kalitesinin birçok yönüyle ilgili soruları ve katılımcılarla ilgili bilgileri içermektedir.

**Bulgular:** Genel memnuniyet oranı, en yüksek oranda multidisipliner sunumlar için (% 96) ve en düşük oranda raporlamanın zamanlaması için (% 77) idi. Memnuniyet; Açıklık ve format, Tanısal doğruluk ve patoloğların sorunlara karşı duyarlılığı için % 90'ın üzerinde bulundu. Katılımcıların % 36'sı MDT sunumlarını mükemmel olarak değerlendirirken, % 46'sı genel olarak profesyonel etkileşim kalitesinin iyi olduğunu düşünüyordu. Bu anketlere göre iyileştirme alanları, raporlamanın zamanında yapılması ve önemli anormal sonuçların bildirilmesiydi (toplam memnuniyet % 79). Ankete katılanların çoğunluğu (% 36) iç hastalıkları ve % 49'u multidisipliner toplantıların üyeleri idi. Katılımcıların yüzde yetmiş biri Hamad hastanesinden, geri kalanı ise diğer hastanelere gitti.

**Sonuç:** Biyokimya ve mikrobiyoloji laboratuvarlarından farklı olarak, Histopatoloji laboratuvarı üyelerinin yeterli klinik bilgi, oryantasyon ve radyolojik bulgular olmadan yeterli raporlama yapması oldukça güçtür ve bu sebepten dolayı klinisyenler ile yakın ilişki içindedirler. Kalite kontrol çalışmaları, patoloji alanında çalışan personelin en fazla iyileştirmeye ihtiyaç olan alanları tespit etmesini ve problemleri alanları iyileştirmelerini, klinisyen-patolog ilişkisini geliştiren ve histopatoloji hizmetlerinin kalitesini en üst düzeye çıkaran önlemleri planlamalarını sağlar.

**Anahtar Kelimeler:** Kalite kontrol, hizmet, anket, histopatoloji, laboratuvar

### Abstract

**Aim:** Customer satisfaction surveys are a routine device used to assess performance. Surveys are used in hospitals to check physician and patient satisfaction. While External proficiency testing ascertains that the laboratory individuals and equipment are up-to-date and give accurate results, the data obtained through physician surveys helps design local guidelines and workflow best suited for that institute.

**Materials and Methods:** The survey questionnaire was made online with 15 questions in total and the link was electronically mailed to all Consultant and Specialist physicians in Hamad medical corporation (HMC). Around 3500 emails were sent out but only 105 surveys were filled in two months' time. The survey included questions pertaining to multiple facets of quality of histopathology services and information regarding the participant.

**Results:** The overall satisfaction was highest for Multidisciplinary presentations (96%) and lowest (77%) for timeliness of reporting. The satisfaction was above 90% for clarity and format, Diagnostic accuracy and pathologists' responsiveness to problems. Thirty six percent of the people rated MDT presentations as excellent while 46% of the people thought overall quality of professional interaction was good. The areas of improvement, as per this survey, was timeliness of reporting and notifications of significant abnormal results (overall satisfaction 79%). Majority of the people who took the survey (36%) were from internal medicine and half were members of multidisciplinary meetings (49%). Seventy-one percent of the participants were from Hamad General hospital (HGH), while rest were from the other hospitals under HMC.

**Conclusion:** Unlike biochemistry and microbiology laboratories, Histopathology lab staff maintains a close relationship with clinicians as reporting is not possible without adequate clinical information, orientation and radiological findings. Quality control surveys allow pathology staff target areas most in need of improvement and plan systems and measures that improve the clinician-pathologist relationship and maximize quality of histopathology services.

**Key words:** Quality control, quality improvement, survey, histopathology, laboratory

### INTRODUCTION

Quality in surgical pathology may be defined as accurate, timely, and complete reports (1). Nakhle noted the importance of good communication,

relaying realistic expectations and making sure that clinicians understand turnaround time and laboratory capabilities (2). The college of American pathologists offers Q-Probes, Q-Tracts and Q Monitors as Quality

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management tools for quality monitoring of laboratory process for performance improvement. These tools were used for a number of labs and the results of such studies have subsequently been published (3-11). Hamad General Hospital's (HGH) Histopathology laboratory receives specimen from all hospitals under the Hamad Medical Corporation (HMC) umbrella and from some private care providers as well. These amount to around 21,000 Histopathology cases per year ranging from Gynecology, neuro surgery, ophthalmology to general surgery. It serves as Qatar's central Histopathology laboratory where, as per the local cancer guidelines, all cancer cases must be reviewed before start of treatment.

## MATERIALS AND METHODS

An online questionnaire was made with 15 questions in total on the website kwiksurvey. This website was chosen in particular as the access was allowed on computers in HMC network and it gives good data sheets. All the consultants and specialists under HMC umbrella were sent the link via email and requested to participate. Around 3500 emails were sent out but only 105 surveys were filled in two months' time with a response rate of 3%. The survey included questions pertaining to quality of histopathology services and information regarding the participant.

## RESULTS

The survey was aimed at senior doctors hence only consultants and specialists were requested. Seventy-one percent of the participants were from Hamad general hospital, while rest were from the other hospitals under HMC. The overall satisfaction was highest for Multidisciplinary presentations (96%) and lowest (77%) for timeliness of reporting. The overall satisfaction was above 90% for clarity and format, Diagnostic accuracy and pathologists' responsiveness to problems. Thirty six percent of the people rated MDT presentations as excellent while 46% of the people thought overall quality of professional interaction was good. The areas of improvement, as per this survey, was timeliness of reporting and notifications of significant abnormal results (overall satisfaction 79%). Majority of the people who took the survey (36%) were from internal medicine and half were members of multidisciplinary meetings (49%). Figure 1 and Table 1.

## DISCUSSION

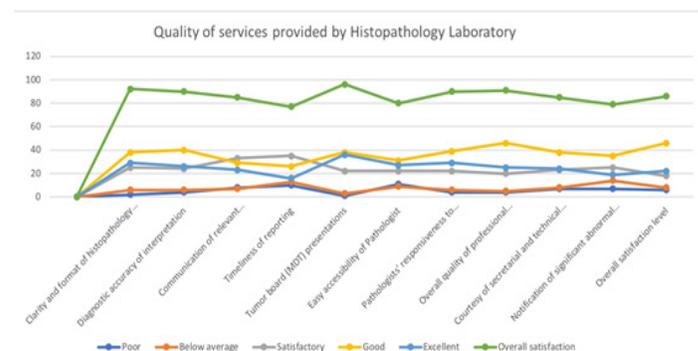
Historically laboratories are regarded as a symbol

of authentic information. Various ways are used to make sure that laboratory standards are high. External proficiency testing is a tool used to ascertain that the laboratory individuals and equipment are up-to-date and give accurate results. Unlike biochemistry and microbiology laboratories, Histopathology lab staff maintains a close contact with clinicians as reporting is not possible without adequate clinical information, orientation and radiological findings.

Customer satisfaction surveys are a routine device used to assess performance in many industries. Surveys are also routinely used in hospitals and laboratories to check patient and surgeon satisfaction respectively. The data obtained by such surveys helps make local guidelines to be used by laboratory staff and design flow of work best suited for that institute's needs. A study by Gillard et al. showed that the opinions of physicians towards laboratory services are related to and affected by their medical specialty hence improvements should be made strategically, focusing on areas identified as in need of service improvement (7). Motivated by CAP surveys and in need of quality improvement, we designed HMC Qatar Histopathology laboratory's first customer satisfaction survey.

### Response rate

The response rate of 3% was much lower than that noted in the previous studies (3-12). Most studies stated a response rate between 30% to 40%. The significantly low rate could be because of the use of internet-based questioner. Multiple studies have found lower response rates with web-based surveys as compared to paper (13). One study noted a difference of 13% of response rate between paper and digital based questionnaire for ages 30 and above



**Figure 1.** Line graph showing overall clinician satisfaction with laboratory services.

**Table 1.** Survey results of the questionnaire distributed to the clinicians.

Quality of services	Poor	Below average	Satisfactory	Good	Excellent	Overall satisfaction
Clarity and format of histopathology reports	2	6	25	38	29	92
Diagnostic accuracy of interpretation	4	6	24	40	26	90
Communication of relevant information	8	7	33	29	23	85
Timeliness of reporting	10	13	35	26	16	77
Tumor board (MDT) presentations	1	3	22	38	36	96
Easy accessibility of Pathologist	11	9	22	31	27	80
Pathologists' responsiveness to problems	4	6	22	39	29	90
Overall quality of professional interaction.	4	5	20	46	25	91
Courtesy of secretarial and technical staff who answer phones	7	8	23	38	24	85
Notification of significant abnormal results.	7	14	25	35	19	79
Overall satisfaction level	6	8	18	46	22	86

(paper: 35.81%, 429/1198; digital: 23.18%, 277/1195). Although the response rates are higher with paper-based surveys, they quite often provide incomplete data and are not cost or environment friendly (14).

The survey done in the US showed a similar trend with timeliness of reporting satisfaction of 79.8%, notification of abnormal results 86% and highest satisfaction of quality of professional interaction (96.3%) and diagnostic accuracy (96.1%). The difference between the two surveys might also lie in the residents being included in the one in the us. In one survey in US the resident rated overall anatomic pathology services as 100% (11).

#### **Timeliness of reporting**

The overall lowest satisfaction in our survey (77%) was reported for timeliness of reporting, as expected. Quite often, there is an expectation for a report to be released in one day and the ordering physician will be unhappy with a 2-day TAT. No doubt, the clinician is under a lot of pressure from patients and planning subsequent management might seem easier with a quick result. One participant commented "some complicated cases take longer in reporting than easy cases, which should be the opposite" while sixteen percent of the people rated timeliness as excellent and 26% as good. This highlights the unawareness of some clinicians to laboratory protocols and procedures. Immunohistochemistry is required in difficult cases

that takes one day at least. The intradepartmental discussions may take an extra day. In case of large tumor resections, specimens are usually sliced and fixed before taking sections to reduce artifacts, none the less, many times one decides to go back to the specimen after looking at the initial slides, to sample more tissue or harvest more lymph nodes. All of these factors contribute to delay in results. However, many clinicians either order critical samples as urgent or relay it to the lab. Hence in such cases, they are kept informed.

Good communication by the pathologists and A clinician that is able to elaborate on the process and provide a reasonable expectation of TAT to his patient is likely to be more satisfied with surgical pathology performance than one who has not received such information (15).

#### **Multidisciplinary meetings**

The overall satisfaction was highest for Multidisciplinary presentations (MDT)(96%). Multidisciplinary meetings are attended by lead pathologists of the field with an accompanying resident or specialist. All the cases are discussed in detail along with discussion on new and emerging entities, changes in synoptic reports and staging. The pathologists many times show either gross or histological images that makes it a very interesting and educational activity to all attendees, consultants

and residents alike.

### **Clarity and format**

The overall satisfaction was above 90% for clarity and format, Diagnostic accuracy and pathologists' responsiveness to problems. Twenty-seven to thirty percent participants rated these as excellent however two commented "some reports have only description without diagnosis" This method of reporting, even though highly discouraged, is many times used. In the absence of sufficient clinical information, a pathologist quite often feels lost. The comment highlights the importance of giving the clinician a call in such instances instead of issuing a descriptive report. One study on the interpretation of histopathology reports found an overall discordance rate of 30% for surgeons and surgical trainees answering open-book questions about anatomic pathology reports. Although senior doctors performed better than less experienced the discrepancies present overall were not minor. This included failure to comprehend the diagnosis when it is not clearly written. For example, one specimen was sent to the lab labeled as "thymus" however histologically it wasn't. Most of the participants assumed that the thymus was removed as that's what the specimen was labelled in the report as well (16).

Regarding tumor resections, pathologists utilize College of American Pathologists (CAP) checklists to provide the relevant information. This method ensures the completeness of data available, both to the clinicians treating the patients and to the Cancer Registry (17-18). However, no standardized templates are available for benign or doubtful cases. Hence discussing it directly with the clinician either in a MDT or on the phone or through a note in the report ensures transfer of relevant information (19). To the question regarding ease of accessibility of pathologist, 11% rated poor, which is the highest poor score for this survey. No doubt, the case allocation is a complex procedure based on a point scoring system. Usually the clinician shall call the secretary and give them the patients identifiers, who will tract the assigned pathologist and notify them. Although this takes a few minutes but might take longer. The system for finding the clinician on the other hand only takes a few seconds as the notes show the name on CERNER (hospital electronic medical record). A solution that was previously suggested but seldom used involved the clinician adding a note in the order to contact at their mentioned number when the result is ready or a request for a preliminary result. Most likely, majority of the clinicians are unaware that we

give high importance to such requests.

### **CONCLUSION**

The clinicians at HMC overall rated histopathology department services from good to excellent. Good communication between the pathologist and clinician can solve most problems arising in histopathology reporting. Standardized checklists from CAP for malignant cases and local checklists in case of benign cases help minimize errors and omissions. While CAP checklists are routinely used, templates or checklists for benign cases are under consideration. With the addition of new staff in the histopathology lab and some changes in the workflow, the laboratory administration aims to improve the clinician satisfaction while maintaining CAP gold standards and introducing new tests.

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