



Pathology Quality Indicator Guidelines

Recommendations from the UofT
LMP Quality Council



February 2022

Over the past several years, consensus has been built in Ontario regarding the essential quality indicators that should be monitored and reported by pathology laboratories. These indicators have been described in the Standards2Quality document co-authored by the OMA Lab Medicine Section and the OAP, and many indicators were subsequently mandated by the CCO/CPSO Quality Management Program (QMP). While the QMP has been discontinued, most labs have adopted routine monitoring of certain indicators as part of their standard practice.

Despite the general consensus around which indicators should be followed, there has been little effort to determine whether these indicators are defined, collected, and interpreted in a similar way between laboratories. The guidelines below focus on particular quality indicators based on findings from a survey that was circulated to laboratories in the greater Toronto area in April 2020.

Please supply any feedback on the guidelines or their implementation to the authors.

Intraoperative consultation (IOC) versus final diagnosis correlation

1. Assessment of IOC versus final diagnosis correlation should be recorded on all specimens that have had IOC performed.

The correlation should be between the IOC diagnosis and the final interpretation of the specific question being asked of the pathologist on the sample of organ or tissue given for frozen section.

Example

A sample of a liver lesion in a patient undergoing surgery for pancreatic carcinoma is sent for IOC. The pathologist performs a frozen section and interprets the finding as “adenocarcinoma”. The pathologist who receives the final case agrees with the interpretation based on both the frozen section slide and the permanent section. This would be a concordant result.

Example

A lung wedge resection with a tumour is received for IOC, specifically assessment of the parenchymal margin. The pathologist renders their intraoperative assessment of “margin grossly negative” based on gross visual inspection; no frozen section was performed. On final pathology, the margin is histologically involved by tumour. This would be a discordant result.

Example

A minute sample of brain is sent for IOC to assess for lesional tissue, and a smear is performed. The pathologist's interpretation is “normal brain tissue”. Another specimen is sent by the surgeon for permanent section. The pathologist interpreting the final agrees with the interpretation of the smear, but the second specimen demonstrates a glioblastoma. This would be a concordant result



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Intraoperative consultation (IOC) versus final diagnosis correlation. Continued...

2. Assignment of final pathologist should be based on IOC.

Different laboratories have developed their own approaches in terms of designating the final pathologist responsible for a case based on IOC. Some laboratories specifically assign cases to a pathologist who did not perform the IOC to minimize bias in doing IOC vs final correlation.

Others routinely assign cases to the pathologist who performed the IOC. Either of these approaches may be pragmatically challenging for some departments; for example, departments where specimens are assigned by subspecialty for which there is a small subspecialty group or even a single pathologist responsible for a specimen type.

For cases that had an IOC, it is recommended that case assignment be performed as per routine case assignment protocols, without regard to who performed the IOC.

3. In addition to concordance, it is recommended that when discordances occur, the reason for discordance is documented.

Possible reasons may include interpretive, sampling, or technical errors, or the final diagnosis may have only been feasible using ancillary tests that could only be performed on permanent sections. This should be documented in the LIS, for the purposes of evaluating the IOC process and identifying areas for quality improvement.

4. When discrepancies occur, prompt assessment of the patient impact is important in order to mitigate harm to the patient involved, as well to consider possible measures to improve processes for the future.

Some discrepancies may not result in any impact or harm, while others may be categorized as minor or major impact.

Departments should develop and implement policies that provide guidance to pathologists regarding appropriate investigation and disclosure when an IOC discrepancy is deemed to have impacted patient care.



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Turnaround time (TAT)

1. Overall TAT, incorporating all specimen types regardless of priority, is a commonly used quality indicator but is of limited utility as trends for specimen types that may have greater impact on patient care may be obscured.
2. Separation of specimens into a diagnostic biopsy category versus a resection category may be more helpful in determining meaningful TAT trends.
3. Specific exclusion of specimen types that tend to have longer TAT is not recommended. Some labs exclude “outlier” specimens, such as placentas or bone specimens requiring decal. These specimens may have impactful diagnoses, and thus TAT for them should be tracked as part of a quality assurance (QA) program.
4. Targeted TAT for particular specimen types may be of value to achieve specific institutional goals or to comply with regional targets.

Prospective reviews

1. Prospective reviews with another pathologist should be recorded for quality assurance purposes. This may also be of medicolegal value in challenging cases where a diagnosis is later disputed.
2. Various professional groups have developed different methods of recording prospective reviews. Most involve either recording directly in the pathology report or a QA module or retrieval flag in the lab information system. For optimal impact and transparency, recording the review in the pathology report, including the name(s) of the reviewer(s), is recommended.
3. The nature of the review should also be recorded; for example, if the review was based on assessment of all slides and ancillary studies or if it was a limited review based on selected slides.



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Critical results

- 1.** All pathology groups should have a list of critical results. These may be based on published lists (e.g. from ADASP) but may be modified to reflect local practice. Such lists are not all-encompassing, and professional judgement still plays an important role in determining what constitutes a result that merits the immediate attention of the responsible physician.
- 2.** Delivery of critical results must be prompt and to the physician responsible for management of the patient. While real-time discussion by telephone or in person is optimal, other electronic means of communication such as email may be acceptable provided that the message is promptly acknowledged by the recipient.
- 3.** The fact that a critical result was delivered must be documented. Documentation should include what was communicated, when the message was delivered, and to whom the information was given. Ideally, this should be recorded in the pathology report. Other methods of recording in the lab information system may be useful for tracking purposes.

Authors

Dr. Corwyn Rowsell

Associate Professor, Department of Laboratory Medicine and Pathobiology, University of Toronto

Corwyn.Rowsell@unityhealth.to

Dr. Zeina Ghorab

Assistant Professor, Department of Laboratory Medicine and Pathobiology, University of Toronto

zeina.ghorab@sunnybrook.ca

Contributors

Dr. Sakinah A Thiryayi, Dr. Paul Yip,

Dr. Khosrow Adeli

This document was developed by the [Clinical Laboratory Quality Indicators and harmonization across the GTA hospitals Working Group](#) of the [Quality Council](#), Department of Laboratory Medicine and Pathobiology, University of Toronto.