EDITORIAL

Standardised Structured Reporting in Histopathology: Are We Prepared?

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Histopathology reports are the tangible product of histopathologists' work, effort and function. The prime users of these reports are the clinicians treating the patients; but recently, the role of pathology reports has markedly expanded beyond individual patient care. To be clinically useful, these must provide clear and consistent information, contain all data items necessary for decision making by the relevant health care providers, information about the nature and validity of the procedure, and the last but not the least, in a format allowing for easy retrieval and searching.[1-5] In effect, pathology report is a form of information of both diagnostic and prognostic importance. With advancements in the field of pathology and ancillary fields, such as immunology and molecular diagnostics, pathology reports are becoming increasingly complex, lengthy, time-consuming and labour-intensive with more emphasis on prognostic information. The quality of information contained in the reports define our competence to others. Reports also document our services, details about work-up done on individual cases including special stains, ancillary techniques of immunohistochemistry (IHC), and time taken to finalise the reports. Many steps are involved in the preparation of final reports, ranging from transcription to final editing by the reporting pathologists, taking considerable time. Errors and delays may occur at any of these stages.[6-8]

Traditionally, histopathology reports are narrative and descriptive in nature to convey the relevant information to patients and their treating healthcare professionals. The gross and microscopical examination of surgical specimens produces a large amount of information, which is of great value for the optimal and multidisciplinary management of patients, especially those with cancer.[9,10] Studies have shown that the historical descriptive and narrative style of reporting in single text field in free-text format leads to omission of the essential items of information necessary for optimal management of patients. The free text format also leads to a significant variability in reporting as different pathologists use a plethora of different reporting formats and styles to communicate their results.[1,4,7,8] More recent studies have shown that structured or synoptic pathology reporting significantly increases the completeness and quality of data in pathology reports, especially in cancer pathology reports. This may be used along with descriptive report or it may be used as the sole means of reporting.[11,12] As a consequence, minimum or comprehensive datasets for the reporting of cancer have been developed worldwide, especially in western countries. American College of Pathologists (CAP), Royal College of Pathologists (RCPath), England, and Royal College of Pathologists of Australasia (RCPA), Australia, have produced standardised cancer reporting datasets or protocols for uniformed reporting on national scale.[13-15] Use of these checklists/discrete data elements ensures that pathologists report all important pieces of information in a uniform manner for use by the clinicians.

It is not only the content of the pathology that matters; but the format of reports is also an important element, if the pathology information is to be used at a larger scale in healthcare planning and management. The terms synoptic reporting and structured reporting are frequently used interchangeably; these are not identical. Synoptic reporting format comprises of an electronic report in discrete data field format, in which, each line contains a single, separate data item. In majority of laboratories, this is still done using a text-based word processor. Combining synoptic reporting in a text-based system with standardised datasets or checklists, the reporting format conforms to Level 3 reporting on the Ontario Scale.[16] This is the maximum level that is currently being used at any hospital in Pakistan. This level of reporting satisfies many key requirements of quality in reporting, such as consistency, completeness, clarity, and conformance with current agreed standards; yet it is not fully structured and discrete data, and cannot meet the needs of secondary users, such as registries, health planners, governmental agencies, research organisations and epidemiologists. Fully structured electronic reporting conforms to Levels 5 and 6 on Ontario scale and involves discrete data fields for full electronic implementation and linkage with eHealth and other healthcare databases. These levels of reporting fulfill the secondary user needs and use an electronic report in the form of discrete data field format, where, each type of information has a specific place and format

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in the report, which is suitable for the standardised collection, storage, retrieval, transmission, and sharing of data between different clinical information systems.

Structured reporting is advantageous for all types of reports. It avoids confusion and errors, provides clarity and consistency, furnishes all necessary information for clinical decision-making, and promotes faster and safer communication of patient results.[8,10,11]

Standardised pathology reporting is still at a primitive stage in Pakistan. Very few centres have adopted the structured reporting pattern, particularly for cancer specimens. But, majority of the laboratories are still using traditional, descriptive reporting format. Thus, there is a need for change in the format of pathology reporting. However, effective changes in the form of reporting require a consensus between clinicians and pathologists. Implementation of change has ancillary benefits to systems and regulators.

Implementation of structured reporting should be achieved in a staged manner. A pilot project in Ontario, Canada, identified 6 levels, where level 1 involves the traditional text-based model in which there is no pre-defined content or format. Synoptic-like reporting in most laboratories worldwide, currently conforms to Level 3 with standardised content in synoptic format. Level 6 is the most advanced form of reporting that involves fully structured, discrete data field reporting amenable to electronic implementation and integration with a variety of clinical information systems for data aggregation, analysis and population-level usage.[16]

Many studies have shown that structured reporting markedly improves the completeness of pathology reports, conformance to standardised nomenclature to avoid ambiguity (thus ensuring consistency and clarity in communication), and turnaround times. These all help achieve better quality of individual patient care. However, structured reporting cannot serve as a substitute for the knowledge or skills of pathologists and their training and experience in the interpretation of biopsies and generation of information for reporting. Thus, accuracy of reporting is operator-dependent. At the same time, it is one of the most important determinants of quality in reporting. This is acknowledged in the RCPA datasets, in which emphasis is given to providing the provision for a free-text comment after the diagnosis line, to address the issues of uncertainty independently of the discrete data elements.[9,12]

In conclusion, there is a need for sensitising the pathologists and clinical community for implementing structured reporting in staged manner in all areas of diagnostic pathology in Pakistan to ensure quality of pathology reporting; and ultimately to achieve the goals of quality care of individual patients and population-level health management.

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