Clinician Interpretation of Pathology Reports
Confusion or Comprehension?

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I and my public understand each other very well: it does not hear what I say, and I don’t say what it wants to hear.

In this issue of the ARCHIVES, Powsner and associates, in their article “Clinicians Are From Mars and Pathologists Are From Venus: Clinician Interpretation of Pathology Reports,” present their findings regarding the art of communication between pathologists and their clinical colleagues. Although there has been some work previously published on this topic, it is essentially an untouched area of research and is worthy of study.

HOW IMPORTANT IS COMMUNICATION IN THE FIELD OF PATHOLOGY?

As pathologists, we have centered our careers on the examination of specimens, data collection, information formulation, and reporting of our findings. We have assumed, quite correctly, that our input into the care and management of patients is essential for the formulation of effective treatment strategies. Research and development in pathology have dramatically changed the way we practice our craft and art, and have changed the way we examine specimens. These processes have improved our ability to examine specimens and increased the amount of information (both relevant and irrelevant) that we can derive from our work. We have taken that information and defined, redefined, and further subcategorized the pathologic processes in human disease. This has resulted in a greater number of smaller defined categories into which we can place a specific disease process.

TO WHAT END?

The further recognition of “clinically relevant” subdivisions of disease processes is desirable. It helps in the selection of appropriate treatment and prognostication for an individual patient. However, currently “clinically irrelevant” subdivisions add nothing to the diagnosis and treatment of patients. It is impossible to determine which areas of research will result in relevant information and which will produce irrelevant data. Both are important in their own right, yet irrelevant data may become prematurely established in the medical lexicon as relevant prior to substantiation by the medical community. We must work to help identify and eliminate this type of data and keep our pathology classification schemes as simple as possible, while providing all of the needed clinically relevant information.

See also p 1040.

This, however, is just one aspect of a multifaceted problem. Another aspect of this equation is the effective communication of our findings (ie, data and information) to the treating physician. This is where the article by Powsner et al provides an important starting point. It should signal our “call to arms” to improve our communication skills. Information, either relevant or irrelevant, provides no useful purpose if it is received by the end user in an unintelligible form. As pathologists, our training is in converting data to useful information; our reports are our product and effective communication is our connection with our clinical colleagues.

Communication is the effective transmission of knowledge or information from one individual to another. To be performed effectively, a great number of conditions must be fulfilled. First, there must be a clear and concise formulation of the data to be transmitted. Second, the data must be transformed into information. Third, that information must be transferred by a method of communication that is mutually agreeable and understood by the sender and receiver. Finally, the recipient must be able both to receive the information and to formulate appropriate follow-up or therapy.

Although the effective transmission of knowledge or information from one individual to another may seem simple, it is difficult to do properly.

After all, when you come right down to it, how many people speak the same language even when they speak the same language?

The transmission of information from pathologist to clinician is often via a written report. It is assumed, either correctly or incorrectly, that both understand the basic pathologic process and classification used in the report. This, however, may be a flawed assumption. Furthermore, there are nonpathologic aspects of the report that can make a significant difference in reader comprehension. The article by Powsner et al addresses this issue. The authors found that there is a significant difference in clinicians’ understanding of the content of a pathologic report based on the
physical presentation of the information in the report. The elements found to influence the understanding of a report’s content included spacing, highlighting, formatting, and font selection. These items, in and of themselves, do not contribute to the content of the report; however, they do appear to contribute substantially to the comprehension of that report. This was shown to be true in this study despite nearly identical wording of the report!

Differences in understanding of reports by various readers was noted and was based on the reader’s level of experience and training. This was not an unexpected finding. It is noteworthy that “streamlined” reports and “improved” formatting were found to actually reduce comprehension by the end user. However, I believe that it would be premature to assume that changes in report formatting would always result in poorer comprehension. Rather, carefully constructed and implemented changes in report design, along with education and instruction regarding these changes, would produce improved comprehension in the long run. Short-term confusion may be an unwanted but anticipated side effect of such changes. Streamlined format reporting may produce similar findings. The use of readily available resources may aid one in determining essential report components to be included in abbreviated reports and help reduce confusion with new report formats.

Finally, although not addressed in the article by Powsner et al, we need to look at other variables in the communication process. Grammar and word selection play an enormous part in the communication of diagnoses. Certainty (or uncertainty) of a specific diagnosis is indirectly communicated via selection of supporting text, comments, and discussion in a surgical pathology report. These aspects of surgical pathology reporting were largely ignored in the previous century. I hope that this article heralds a new interest in effective communication in pathology (and medicine) in this new millennium. Let us work to prove Hobbes wrong when he states, “Maybe we can eventually make language a complete impediment to understanding.”

References
5. Watterson Bill Calvin and Hobbes.