

The Problem with Abbreviations and Acronyms

In the writing, review, and editorial processes we each undertake, we seek clarity through shortening sentences and crafting short narratives using figures or pictures to get to the heart of what we are trying to convey. Inadvertently, this process of compacting significance into a brief choice of a word, phrase, or abbreviation can lead to significant confusion. Confusion can occur from cultural meaning, context, or the forum in which the construct is used, as well as our biases and assumptions. It is well accepted in scientific writing that the author should always define the full term before using an abbreviation. This creates the context in which the reader then understands the abbreviation later in the article. In turn, abbreviations can become so commonly used within a discipline that it is rather assumed one already knows the meaning. To explain it to a reader somehow conveys that they are out of date for not knowing. The reality is that abbreviations can be useful when a small team completely understands this form of communication (say, in a blue code situation in a hospital operating room, or in an airplane cockpit trying to talk with an air traffic controller). Clear understanding can avoid confusion and may even save a life.

In the process of scientific publishing, more databases are scraping journal citations and data searching on the abstracts of articles. Since the database is not searching the whole article, the meaning of an abbreviation is not clear if it was used in the abstract without definition. Therefore, journals like JOMI have a policy to not allow abbreviations in the abstract. The irony here is that an abstract is already an "abbreviation" for the full paper itself. Where this gets tricky is when abbreviations are used for various measurements the authors have used. Not only can abbreviations like MBL be confusing, but some articles will also use abbreviation extensions almost to the point of suspected obfuscation. There is nothing more frustrating than to have a sentence such as the following: "When MBL levels were measured at time BMBL to time 1MBL, 2MBL, and 3BML, it is clear HBMBL and VBMBL at each time period referenced respective, BMBL." "Huh" is my typically confused response. That the author measures baseline marginal bone levels in a horizontal (H) and vertical (V) manner at three time periods (1, 2, 3) following placement may be a reasonable experimental design, but a table format could explain this without multiple chains of abbreviations. As a colleague once said to me, "If only I had more time, I would have written a shorter paper."

Now to the heart of the problem. What do we mean by MBL? It could be marginal bone levels, median marginal bone levels, mean marginal bone loss, median

marginal bone loss, etc. Marginal bone level implies that an author is measuring the apparent position of mesial and/or distal radiographic bone levels at a point in time. It is up to the reader to determine the significance since marginal bone level could easily be at the apex of the implant. On the other hand, marginal bone loss implies that there is a reference point used to measure from that is clear on a radiograph. Further, bone loss implies a net change at a specific time point, not just a linear measure. The way the data are now reported becomes a challenge. Data can be presented as descriptive linear changes or percentages relative to some time point (preferably implant placement). One could state marginal bone loss from implant placement, restoration, or between time points in the study (hopefully with a consistent sample size and measurement of the same implant/subject). Well, enough of this rabbit hole.

The challenge with the implant literature is that we have tried to bring editorial standards to bear to support the authors and readers. Yet, the standards are often ignored in the spirit of individualism and uniqueness. An editor is needed to return the paper to the author and seek ongoing clarification and alignment with the standards of the journal. The other issue with abbreviations is the need to always be careful and judicious in their use. Take, for instance, the use of the term "MBL." For some, MBL means Major League Baseball, while for others, it means Marine Biological Laboratory, and yet for others, it means monoclonal B-cell lymphocytosis, etc, in addition to the various permutations I've already mentioned. If one is not careful, you could even think this is about a certain Saudi prince's name. The point is, we need clarity and standards in the use of any abbreviations and acronyms. These are all important forms of shorthand that we use on a daily basis, but it may be worth stopping from time to time and asking, "am I making sense?" As Alan Greenspan (a prior U.S. Federal Reserve Chair) said, "I know you think you understand what you thought I said, but I'm not sure you realize that what you heard is not what I meant."

Yes, clarity and brevity save paper, mental bandwidth, and perhaps even lives. That is, if everyone understands what you meant.

Thank you.



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