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The Peer Review Process

The process of peer reviewing manuscripts is an important part of producing a professional journal. Many reviewers have asked me to evaluate the quality of their reviews. I offer this information about the review process to encourage additional people to serve as reviewers and to improve the knowledge of current reviewers.

A reviewer should only review manuscripts in their area(s) of competence. Each reviewer for *JNMT* completes a data sheet that identifies the content area(s) the individual is willing to review. If a reviewer receives a manuscript that they do not feel they are qualified to review, they have two choices. They could identify a content expert in their local area and ask the expert to review the paper. The alternative is to immediately return the manuscript to the editor. The name of the individual who actually performed the review should always be listed on the review that is returned to the editor. The individual then can be acknowledged as a reviewer of record and may be asked to become a regular reviewer.

The review must be performed promptly. When reviews are delayed the author must wait for a decision about acceptance. A reviewer always has the option of immediately returning the manuscript to the editor if they know they will be unable to review the manuscript quickly. Each manuscript that is published in *JNMT* has been reviewed by a minimum of two peer reviewers. Increasingly I am asked to confirm for employers that scientific manuscripts that have appeared in *JNMT* have been peer reviewed. Decisions concerning professional advancements often are tied to publication in peer-reviewed journals.

The ethics for manuscript reviewers require that the reviewers remain anonymous. The identity of authors and the contents of manuscripts are confidential until they are published in the journal. All reviewers, including alternates as described above, must maintain this confidentiality. There is never direct communication between the reviewer and an author. Sometimes authors try to guess

who reviewed their paper. Reviewers also try to identify the authors. These guesses are almost never correct. This behavior is worrisome for editors. The concern is one of bias. The role of the reviewer is to judge the merit of a manuscript without bias. Bias may be negative based upon the scientific views of the reviewer or on rivalries. Bias also can be positive based upon friendships or if a manuscript promotes scientific views similar to those held by the reviewer.

Each reviewer ultimately develops their own process for reviewing manuscripts. It is important to first read the manuscript as submitted. The reviewer must then critique several aspects of the manuscript. Most important is scientific content:

- Is the objective clearly stated?
- Are the methods adequately described? Could a reader duplicate the procedure based upon the description presented?
- Is the experimental design appropriate for the stated objective(s)? Are the statistical methods appropriate?
- Is there sufficient data for the conclusions?
- Are there any errors in facts, calculations and/or interpretation?

- Is the discussion relevant?
- Is there repetition of content within the text, tables and/or figures?
- Are references relevant and correctly cited? Are important references missing?
- Do the title, abstract and key words accurately represent the paper?
- Next the reviewer should consider the quality of writing:
 - Is the writing clear and concise?
 - Are there typographical or spelling errors?
 - Are there syntax errors?
 - Are the requirements found in the *Style Manual for Authors* met?

The reviewer must make a recommendation to the editor about the disposition of the manuscript:

- Accept without revision
- Accept with minor revisions suggested
- Unacceptable manuscript form with major revisions required
- Unacceptable manuscript due to insufficient data, elementary information or previously reported work
- The material is better suited for another journal.

Finally the reviewer must make suggestions to the author(s) about needed revisions. Recommendations should be specific. Identify repetitive information and recommend specific deletions. Identify typographical, spelling and syntax errors. Identify passages that are unclear. Recommend statistical tools. Inform the author of references that should be cited.

Do you consider each of these items when reviewing manuscripts? Begin to incorporate these into your critiques. With experience our reviewers will become more sophisticated and the quality of the peer reviews will improve. Ultimately the quality of the journal will be improved.

If you would like to become a manuscript reviewer, contact me at the address listed under editorial communications on the bottom of the table of contents page for a reviewer data form.