EDITORIAL

Introducing the Journal of Thoracic Oncology Statistical Series

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Sumithra J. Mandrekar, PhD,[a] Jennifer Le-Rademacher, PhD,[a]
Alex A. Adjei, MD, PhD, FACP[b,*]

The *Journal of Thoracic Oncology* (JTO) is excited to introduce a series of brief articles on various statistical topics in the journal this year, starting with the current issue. As the mission of the JTO is to be the "primary educational and informational publication on topics relevant to the prevention, detection, diagnosis, and treatment of thoracic malignancies," we strive to publish manuscripts of the highest scientific rigor in these areas. Rigorous research requires that studies are thoughtfully conceived, designed, and conducted; with data appropriately analyzed and interpreted; and conclusions meaningfully framed in a context that expands current knowledge. Medical knowledge, whether related to prevention, detection, diagnosis, or treatment, relies on the generalization of results generated from experimental studies conducted in a controlled environment on a sample of carefully selected subjects. Therefore, how well the study results can be generalized and to which population(s) they apply to depends on the study design, its conduct, and its outcomes. As statistical inference is the basis for generalization of outcomes observed in a sample (a group of subjects from experimental studies) to a larger population, applying appropriate statistical methodology to achieve the objectives of the study is a critical component of a rigorous research study.

The goal of this statistical series is to provide the JTO authors and readers an overview of fundamental statistical principles and recommendations for best practices. The series starts with this inaugural article on principles of good clinical trial design. Subsequent articles will cover topics ranging from study design principles, to modeling and analyses, to the reporting of research results. These articles will be written by a multidisciplinary team, including experts in their respective areas. Each article is a brief report that includes a review of the topic area, practical recommendations (sometimes with the use of case studies), and a list of relevant references. We hope to provide JTO authors and readers a quick reference guide on best practices and principles that can be applied to their research. As a consequence, the journal will expect to receive manuscripts on studies that are well designed, rigorously analyzed, and appropriately reported. Such high-quality research will be of benefit to investigators, our readers, patients, and society in general.

*Corresponding author.

[a]Department of Health Sciences Research, Mayo Clinic, Rochester, Minnesota, and [b]Department of Oncology, Mayo Clinic, Rochester, Minnesota.

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Address for correspondence: Alex A. Adjei, MD, PhD, FACP, Department of Oncology, Mayo Clinic, 200 First Street Southwest, Rochester, MN 55905. E-mail: adjei.alex@mayo.edu