## **Quality of search – sample size**

## Qualidade da pesquisa – tamanho amostral

Álida Rosária Silva Ferreira<sup>1</sup>

The scientific production, among the various situations surrounding the COVID-19 pandemic, has discussed the outcomes related to various clinical situations. The increased number of publications is a reality.

In a retrospective study, it was reported that four patients with previous unknown coronavirus, who had undergone elective surgery, had postoperative complications. The authors conclude that carrying out elective procedures, at the moment, maybe associated with increased risks without any benefits<sup>1</sup>.

The question that arises from a study like this is: what is its quality with such a small sample? Wouldn't the interpretations be flawed? If these questions are not clear, the results can lead many professionals to take decisions based on unreliable studies.

From a statistical point of view, the sample size is a fundamental methodological tenet, when the final objective of the study is to extrapolate the results from that sample to the entire population. A sample calculation is, along with the randomization process and good data collection and processing, an important step to certify the quality of a study and generalize its results<sup>2</sup>.

However, in times of global crisis, more specific and quicker studies have been the routine. These can support practices often adopted by the Healthcare System, but which need scientific background to support decision making.

What needs to be clear to the healthcare professionals and administrators is that this type of study has many limitations. Therefore, such study needs to be carefully assessed in order to avoid wrong decisions that will certainly have a huge impact on the population, whether if it is a patient who has/had the new virus, or one who is waiting for an operation. And for the latter, the operation is a crucial therapy (such as in cancer) and may help improve his/her quality of life.

## REFERENCES

1. Aminian A, Safari S, Razeghian-Jahromi A, Ghorbani M, Delaney CP. COVID-19 outbreak and surgical practice: unexpected fatality in perioperative period. Ann Surg. 2020 Mar 26. doi: 10.1097/SLA.00000000003925.

 Farias AA, César CC, Soares JF. Introdução à Estatística. Rio de Janeiro: LTC; 2003.

<sup>1 -</sup> Federal University of Minas Gerais (UFMG), Minas Gerais - MG - Brazil.