

## EDITORIAL

## Let's Promote Clinical Trials

• Rajesh Gyawali<sup>1</sup>**Rajesh Gyawali**

rajesh.gyawali@bпкиhs.edu

<https://orcid.org/0000-0003-0561-6018>

<sup>1</sup> Department of Orthodontics, B. P. Koirala Institute of Health Sciences, Dharan, Nepal.

## Citation

“Gyawali R. Let's promote clinical trials. *JBPKIHS*. 2021;4(2):1-2.”

<https://doi.org/10.3126/jbпкиhs.v4i2.40931>

This work is licensed under a Creative Commons Attribution-NonCommercial 4.0 International License.

High-quality research begins with a sound study design. Randomized controlled trial (RCT) is considered as the gold standard in generating evidence for testing the efficacy of a new drug or intervention. Observational studies, on the other hand, are important in generating new hypotheses, testing the real-life application of findings of a trial, and establishing a base for sample size calculation for a trial. A well-designed observational study provides valuable information for clinical decision-making where RCT is lacking. A report of single or multiple cases describes an unusual or rare occurrence and provides insight into the unexplored aspects of a disease. Though all research designs have their significance, evidence generated from RCTs and meta-analysis of RCTs are high ranked and often used for changing practice guidelines.

Randomization in the allocation of the participants in the treatment arm is the key feature of RCT designed to control known and unknown variables that might affect the outcome. This feature removes the investigator's bias in allocating the treatment and is considered as the beauty of randomization [1]. Besides, RCT also plays a significant role in evaluating routine standard care. The routine administration of anti-arrhythmic drugs after myocardial infarction was found to increase the incidence of death when this standard care was challenged in the CAST trial [2]. Similarly, the CRASH trial in 2004 proved the standard therapy of administering steroids after head injury to be more harmful when mortality was considered [3].

Although RCT is the best design to test the efficacy of a new treatment, we do not find adequate trials published in the medical literature. Most of the Cochrane reviews conclude with insufficient evidence to favor treatment and encourage more trials for informed decision-making. Majority of the research articles in medical journals are observational studies and clinical trials occupy a meager percentage.

There are several hurdles in designing, planning, conducting, and monitoring a clinical trial. Designing the trial is crucial to focus on the given research question. A team with qualified and expe-

## Declarations

The author declares no conflict of interest.

rienced members with expertise in different aspects of a trial besides the research area is essential. Preparation and maintenance of appropriate trial documents require significant time and effort. Before recruiting patients, a trial proposal must pass through regulatory hurdles. It must be approved at the local (institutional) and national level, and by the ethical boards of all the countries in case of multinational trials. Varying laws/regulations in different countries also add complexity and significantly delay ethical approvals [4].

Sufficient patient recruitment and retention to achieve the desired power is another challenge of RCT. Negative perception of the public towards clinical trials can be a hurdle to successful recruitment. Many clinical trials require time extension to meet the initial recruitment plan which further adds financial burden [5]. The cost of a clinical trial is rising each year with increas-

ing regulatory scrutiny to ensure the safety of the trial participants. Hence, it may be impossible to conduct a clinical trial without sufficient grant/ funding. In Nepal, research grants are provided by Nepal Health Research Council, University Grant Commission, and other institutions/ organizations but the budget allocated is negligible. Thus, international funding agencies are often relied upon to conduct clinical trials in our country.

As RCTs have played a significant role in the prevention and treatment of disease saving millions of lives, it is the responsibility of all the stakeholders of clinical research to facilitate and promote clinical trials. The hurdles in the conduction of trials should be relaxed to motivate the researchers in generating high-quality evidence to inform clinical practice.

#### References

1. Torgerson DJ, Torgerson CJ. Designing randomised trials in health, education and the social sciences: an introduction. 1st ed. London: Palgrave Macmillan; 2008.
2. Echt DS, Liebson PR, Mitchell LB, Peters RW, Obias-Manno D, Barker AH, et al. Mortality and morbidity in patients receiving encainide, flecainide, or placebo: the Cardiac Arrhythmia Suppression Trial. *N Engl J Med.* 1991;324(12):781-8. DOI:10.1056/NEJM199103213241201
3. Roberts I, Yates D, Sandercock P, Farrell B, Wasserberg J, Lomas G, Cottingham R, et al. CRASH Trial Collaborators. Effect of intravenous corticosteroids on death within 14 days in 10008 adults with clinically significant head injury (MRC CRASH trial): randomised placebo-controlled trial. *Lancet.* 2004;364 (9442):1321-8. DOI:10.1016/S0140-6736(04)17188-2
4. Kenyon GM, Mendelow AD, Gregson BA, Rowan E. Obtaining regulatory approval for multicentre randomised controlled trials: experiences in the STICH II trial. *Br J Neurosurg.* 2011;25(3):352-6. DOI:10.3109/02688697.2010.551675
5. Campbell MK, Snowdon C, Francis D, Elbourne DR, McDonald AM, Knight RC, et al. Recruitment to randomised trials: strategies for trial enrolment and participation study. The STEPS study 2007. *Health Technol Assess.* 2007;11(48):iii-105. DOI:10.3310/hta11480