Translational Research, Road Blocks and Solutions

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Technological advancements are occurring at a fast phase in dentistry and other biomedical fields. Many new biological materials and methodologies are tested for various clinical applications in laboratories. But the lab to chairside transfer of these innovations are often marginal in real life scenario.[1]

The laboratory findings from invitro and animal-based studies has to go through a rigorous scientific validation by clinical trials before it can be used in routine clinical practice. It is often found that, good evidences regarding the efficiency or harm from the newer technology in basic research is lacking in order for the research to progress to human trials.[2]

The are many reasons for such a delay in the clinical translation of laboratory research findings which include the

a) lack of understanding among the basic scientist regarding the clinical solutions required

b) complex regulations involved in human trials and

c) the lack of good evidence-based data from basic research.[2,3]

Hence the research should be conducted by a multidisciplinary team involving basic scientists and clinical scientists so that clinically relevant research questions can be framed and the appropriate laboratory techniques can be employed. This approach will help to derive clinically relevant quality data which can be effectively used for human clinical trials.[3]

Reference

1. Faggion Jr CM. The (in) adequacy of translational research in dentistry. European journal of oral sciences. 2020;128:103-9.
2. Perry CJ, Lawrence AJ. Hurdles in basic science translation. Frontiers in pharmacology. 2017;8:478.
3. Kishen A. Translational research in dentistry: The need of the hour. Indian J Dent Res 2019;30:817-8.

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