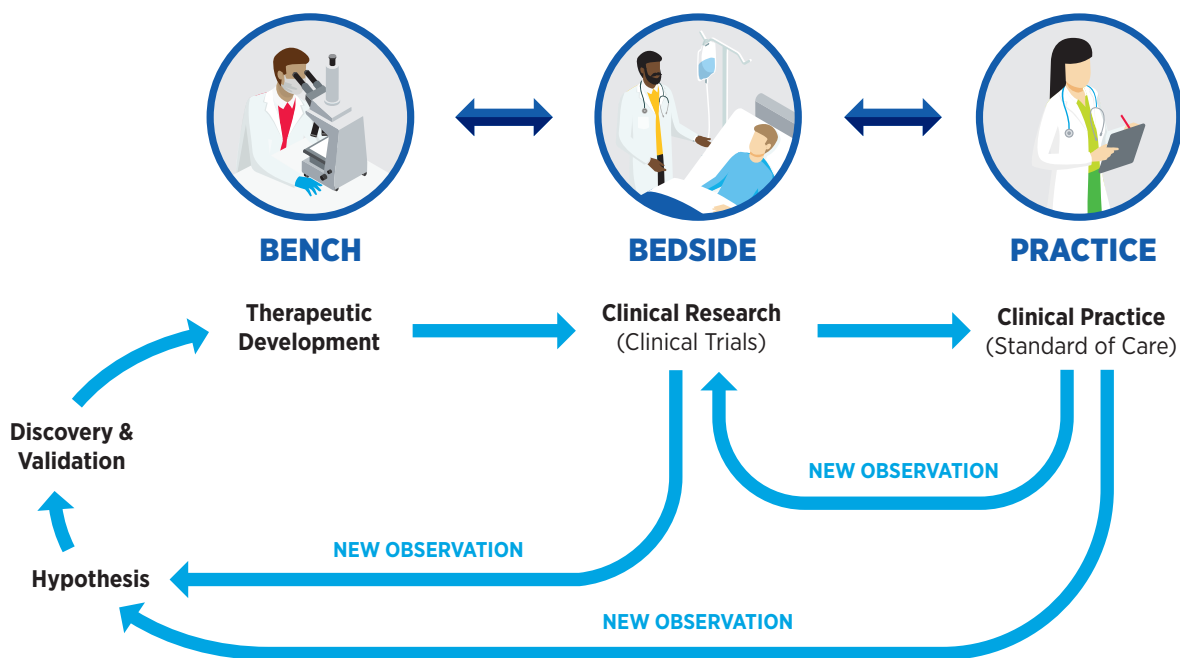


FIGURE 7

The Medical Research Cycle



The medical research cycle is an iterative and self-driven process with a primary goal to save and improve lives. Findings from any type of foundational research can lead to new questions and generate new hypotheses relevant to the practice of medicine. The discovery phase of the medical research cycle uncovers new targets for developing better and more effective treatments. Potential therapeutics first undergo preclinical testing to identify any harmful effects and determine initial dosing. The safety and efficacy of potential therapeutics are then tested in clinical trials. If an agent is safe and effective, it is approved for use in the clinic by the U.S. Food and

Drug Administration (FDA). Importantly, observations made during the routine use of a new therapeutic can further improve its use or inform the development of others like it. Even for therapeutics that are not approved by FDA, observations from preclinical and/or clinical testing can spur future research efforts.

In addition to fueling the development of safer and more effective therapeutics, scientific knowledge gathered through the medical research cycle informs evidence-based guidelines for cancer screening and treatments as well as public health policies and regulations.