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Editorial

Post-Pandemic Therapeutics: Reimagining Resilience in Global Health

Satish Eknath Bahekar*

Department of Pharmacology, Government Medical College, India

***Corresponding Author:** Satish Eknath Bahekar, Department of Pharmacology, Government Medical College, India.

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The COVID-19 pandemic compelled medicine to evolve at a pace unparalleled in modern history, transforming the way therapeutics are developed, tested, approved, and delivered. In this post-pandemic era, the global scientific community faces a dual challenge: sustaining the momentum of innovation while rebuilding trust, equity, and preparedness within therapeutic systems.

One of the most significant outcomes of the pandemic has been the rapid acceleration of vaccine and drug development pipelines. The integration of mRNA platforms, drug repurposing, and adaptive clinical trial designs demonstrated that speed and safety can coexist—provided that regulatory agility is matched by scientific rigor [1,2]. The infrastructure established for producing COVID-19 vaccines at record speed is now being redirected to therapeutics for cancer, influenza, and neglected tropical diseases [3].

Equally transformative has been the shift toward digital therapeutics and tele pharmacology, with artificial intelligence becoming a cornerstone of rational drug use through advanced decision support systems [4]. Real-time surveillance and big-data analytics are driving precision public health, tailoring interventions not only to diseases but also to the specific population dynamics that perpetuate them.

However, this new landscape also exposes fresh vulnerabilities. The pandemic's supply-chain disruptions revealed the fragility stemming from heavy dependence on a few global pharmaceutical nodes [5]. Moreover, inequitable access to antivirals and monoclonal antibodies highlights the urgent ethical need for equitable distribution frameworks [6]. Today, public confidence in therapeutics depends not only on efficacy but also on transparency, local manufacturing, and genuine community participation.

Going forward, global health systems must institutionalize the lessons learned: promote open-science collaborations, strengthen regional drug manufacturing capacity, and integrate pandemic preparedness into routine pharmacovigilance. The post-pandemic world cannot revert to pre-2020 complacency. The next health crisis will test not only our science but our solidarity.

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