

# ICMR delivers medications via drone across rough Himachal terrain

The drone successfully transported more than 100 units of essential medications over 20 kilometres in Himachal Pradesh, and cut down on the time from 120 minutes to 26 minutes

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Medications and samples being delivered via drone in Himachal Pradesh's Lahaul & Spiti. | Photo Credit: @ICMRDELHI

The Indian Council of Medical Research (ICMR) on October 19 successfully transported more than 100 units of essential medications for 20 kilometres in Lahaul and Spiti district using drone and reducing travel time from 120 minutes to 26 minutes.

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The feasibility study in Himachal Pradesh is part of the national mission to advance India's drone ecosystem to explore the transportation of vital medical resources, including medications, diagnostic blood samples, and sputum, via drones.

In this first high-altitude, low-temperature venture ICMR's endeavour in the long-run is to streamline the distribution of essential medical provisions from regional hospitals in Keylong to more than eight Primary Health Centers (PHCs) in the region, encompassing locations such as Sissu, Gondhal, Thiort, Tholang, Jahalma, Gemur, Darcha, Shansha, among others.

"The protocol's development, execution, and overall coordination have been entrusted to a dedicated team of scientists, hailing from both the ICMR-Headquarters, New Delhi, and the ICMR-Regional Medical Research Centre-Gorakhpur, (Field Station Keylong)," said Dr. Sumit Aggarwal, scientist and program officer, Division of Epidemiology and Communicable Diseases, ICMR, speaking to *The Hindu*.

He added that during the inaugural flight, the drone successfully transported more than 100 units of essential medications including antibiotics, antipyretics, and multivitamins from the Police grounds in Keylong to the Tholang PHC, which is approximately 20 kilometres away from the district hospital. The flight took off from 11,500 feet ASL (Altitude above mean Sea Level) and went up to 14,500 feet ASL and recorded a temperature of -15 degrees Celsius at height.

On its return journey, the drone carried TB sputum samples, blood samples, and various diagnostic specimens back to the Keylong Centre for thorough analysis. The round trip, which takes 2 hours by road and is often delayed due to snowfall, took around 26 minutes in total with the drone.

Meanwhile, the Council notes that it is working at delivering vital medical supplies via drones to challenging-to-access regions such as Manipur and Nagaland and is also scheduled to conduct several test flights to different PHCs soon.

“This ‘i-DRONE’ was first used during Covid-19 pandemic by ICMR for distributing vaccines to unreachable areas. Earlier this year, we were able to successfully complete the trials for the delivery of blood and blood-related products, which are supposed to be kept at a low temperature. In the present study, we are aiming to deliver the medications and diagnostic samples at sub-zero temperature areas and difficult regions with altitudes over 12,000 ft. This is an initiative towards making an impact in the lives of people residing in remote areas,” said Dr. Rajiv Bahl, director-general ICMR.

ICMR added that throughout the comprehensive testing period, scientists have identified numerous technical and operational hurdles that local communities encounter when trying to deliver essential medical items, particularly in remote and challenging geographical landscapes.