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India witnessing expansion of AI-powered lung cancer screening in public hospitals

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Collected data might prove useful for policy-makers



India is making a giant leap forward in revolutionising cancer diagnosis through the application of artificial intelligence (AI) for lung screening in public hospitals. Given that lung cancer is among the most common cancers causing deaths, and it is usually diagnosed at a very late stage, the purpose of this innovation is to detect cancer early and treat it.

This innovative technology relies on the power of AI to examine chest X-rays and CT scans. Through machine learning, AI tools are able to scan millions of medical images and spot any slight signs like tiny nodules and unusual tissue formations.

The technical side of such solutions is based on a combination of AI algorithms and deep learning approaches such as Convolutional Neural Networks (CNNs) that try to replicate human capabilities of analysing visual input data.

As a result of constant learning from new samples, these systems become better and better at making distinctions between benign tumors and those that pose potential risks for patients' health.

In addition to disease recognition, the introduction of AI in healthcare allows making advances in epidemiological studies and obtaining insights into factors affecting cancer development (including pollution). This means that the collected data might prove useful for policy-makers and allow developing preventive measures for the future.

For instance, Goa is the first state in India to implement an AI-enabled lung cancer screening pilot. The government has proposed making AI-assisted screening a standard alongside chest x-rays in all government hospitals, so early detection is available to everyone. The initiative is being implemented under a public-private partnership with AstraZeneca and Qure.ai.

In April 2026, AstraZeneca Pharma India signed a Memorandum of Understanding (MoU) with the Government of Telangana to introduce AI-enabled lung cancer screening across public healthcare facilities in the state. The collaboration aims to strengthen early detection and improve outcomes for patients in both urban and rural areas.

Several hospitals and institutions have also launched independent AI-driven initiatives. SSO Cancer Hospital recently announced the introduction of AI-powered diagnostic systems to improve cancer detection and patient care efficiency; Yashoda Hospital, Hitech City, has collaborated with Qure.ai to establish an AI-enabled Lung Nodule Clinic focused on identifying suspicious nodules earlier and ensuring faster clinical intervention; Kamala Nehru Hospital has partnered with IIT Kanpur to unveil an AI-powered lung cancer screening device designed to support accessible and affordable early detection, especially in resource-constrained healthcare settings.

With AI implementation in public health facilities, India is creating a benchmark for the application of new technology to solve the problems of inequality in healthcare.

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