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A first for Bharat, a first for India: Bharat Biotech launches first indigenous cell-culture H1N1 vax

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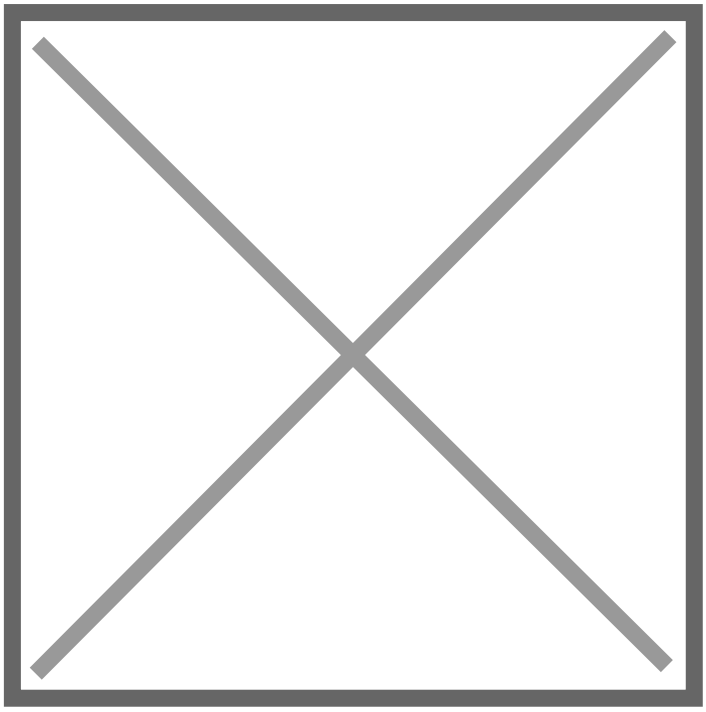
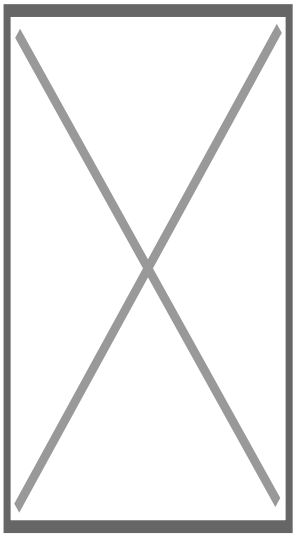


After H1N1 vaccine launched by companies like Sanofi-aventis, Zydus Cadila and Serum Institute of India, Bharat Biotech gives India the first indigenously developed cell culture H1N1 swine flu vaccine, HNVAC



October 2010 saw Bharat Biotech, one of India's leading vaccine company, launch India's first indigenously developed cell culture H1N1 swine flu vaccine by the brand name HNVAC. This is said to be the only flu vaccine to be manufactured in cell culture — a highly sterile and controlled manufacturing process — instead of eggs, in the developing world.

The vaccine was developed with approved strains from World Health Organization (WHO) and Centers for Disease Control and Prevention (CDC) Atlanta (US), by the company's scientists at the Genome Valley facility in Hyderabad. HNVAC is Bharat Biotech's superior, clean, safe and controlled mammalian cell culture technology, ahead of several multinational and Indian vaccine companies, which still use eggs for manufacture. The FDA has discouraged the use of egg-based vaccines due to adverse reactions from egg-based proteins, particularly in children.

Commenting on the launch, Chairman & Managing Director, Bharat Biotech, Dr Krishna Ella said: “We are pleased to announce the launch of HNVAC to check H1N1 pandemic influenza that can spread rapidly, resulting in a high rate of disease and death. Bharat Biotech is proud to develop and offer this vaccine with the best FDA-recommended cell culture technology for Indian consumers.”

A recent study conducted by Indian Ministry of Health & Family Welfare finds that there is no let up in the causalities resulting from H1N1 influenza virus attack. The findings of this study reveal that till September 2010, samples from 177,816 persons have been tested for influenza A H1N1 in government and a few private laboratories across India; and 42,245 (23.7 percent) of them have tested positive. Of the lab-confirmed cases cumulative since May 2009, the casualties stand at 2,316.

Ahmedabad-based Indian pharmaceutical major Zydus Cadila was the first phamaceutical company to launch indigenous vaccine against H1N1. Cadila's H1N1 vaccine, Vaxiflu-S was launched by Indian Health & Family Welfare Minister Mr Ghulam Nabi Azad, in June 2010.

VaxiFlu-S is an egg-based, inactivated vaccine-based on conventional technology developed by Cadila's researchers at its Vaccine Technology Center (VTC) in Ahmedabad. VTC further plans to develop a wide spectrum of vaccines against bacterial, viral and protozoal infections.

The Indian government has been importing H1N1 vaccine from global pharma major Sanofi-aventis. In July 2010, Serum Institute of India (SII), one of India's largest vaccine manufacturers, launched its indigenously developed intra-nasal H1N1

vaccine, Nasovac. SII thus becomes the third manufacturer in the country to market vaccines for swine flu.

A live attenuated influenza vaccine (LAIV) Nasovac, is a single-dose vaccine fitted at the top of the syringe, and about 0.25 ml is administered in each nostril, mimicking the path followed by the virus, to enter the body. The vial consists of five doses. Except for pregnant women, any individual above the age of three years can use this intra-nasal vaccine. On the other hand, an injectable vaccine can be administered only to individuals of 18 years and above. SII has also launched an injectable H1N1 vaccine for children below the age of two years. The product is priced at half the price of similar vaccines, marketed by Indian and foreign companies. The price of a single dose of Nasovac costs 160 ($3.42), and is now available at retail outlets across all cities in India. Initially, SII is marketing the product in India, and after receiving the WHO pre-qualification, it intends to market the product in 100 countries.