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# Ebola vaccine trial update

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**Singapore:** WHO, in consultation with over 70 experts, is assessing the status of two Ebola vaccine candidates for their safety and efficacy potential.

The two candidate vaccines have clinical-grade vials available for phase 1 pre-licensure clinical trials. One (cAd3-ZEBOV) has been developed by GlaxoSmithKline in collaboration with the US National Institute of Allergy and Infectious Diseases. It uses a chimpanzee-derived adenovirus vector with an Ebola virus gene inserted.

The second (rVSV-ZEBOV) was developed by the Public Health Agency of Canada in Winnipeg. The license for commercialization of the Canadian vaccine is held by an American company, the NewLink Genetics company. The vaccine uses an attenuated or weakened vesicular stomatitis virus, a pathogen found in livestock; one of its genes has been replaced by an Ebola virus gene.

The panel included specialists from virology of emerging infections, regulatory, medical ethics, public health, and infectious diseases along with heads of clinical research and executives from the pharmaceutical industry.

**Phase 1 clinical trials**
WHO, along with its partners have helped facilitate expedited evaluation of these two vaccines in order to generate phase 1 safety and immunogenicity data for decision-making. A series of coordinated phase 1 trials is currently under way or will soon be initiated with international consortia at more than 10 sites in Africa, Europe and North America.

The trials, which are being conducted in healthy human volunteers, are designed to test safety and immunogenicity and select the appropriate dose. Two phase 1 trials of the cAd3-ZEBOV started in September 2014 in USA and UK, and the first Phase 1 trial of VSV-ZEBOV is due to start early in October in USA.

The government of Canada has donated 800 vials of rVSV-ZEBOV to WHO. Once data on dosing from phase 1 trials become available, this donation could translate into about 1500 to 2000 doses of vaccine.

Both companies are working to augment their manufacturing capacity. The goal is a very significant increase in scale during

the first half of 2015.