NATIONAL MEDICINES REGULATORY AUTHORITY, SRI LANKA March 4, 2021

Evaluation Report for Emergency Use Permission

COVID-19 Vaccine (SPUTNIK V)

Name of Manufacturer	Generium Joint Stock Company (Generium JSC) 263 Zavodskaya, Street., Volginsky, Petushinsky district, Valdimir region, Russia for *Federal State Budgetary Institution (FSBI) "National Reserch Center for Epedemiology & Microbiology of Ministry of Health of the Russian Federation" ("Medgamal" branch of the Federal state Budgetary Institution" National Reserch center for Epidemiology & Microbiology named after honorary academician N.F. Gamaleya" of the Ministry of Health of the Russia. At 25, Gamalei st-123098, Moscow*
Name of the Local agent	State Pharmaceuticals Corporation of Sri Lanka
Generic name of vaccine	Combined vector vaccine for prevention of coronavirus infection caused by the SARS-CoV-2 virus (COVID-19)
Trade name in Russia (Finished product)	Gam-COVID-Vac
Trade name for Export	SPUTNIK V

DETAILED REVIEW COMMENTS

SECTION - 1

Pharmaceutical assessment report of SPUTNIK V vaccine manufactured by *Generium Joint Stock Company (Generium JSC) Russia for FSBI Gamaleya National Centre of Epidemiology and Microbiology of Ministry of Health of Russia (Medgamal Branch of Gamaleya National Center of Epidemiology and Microbiology of the Ministry of Health of Russia), Russia.*

This report is based on the information provided by State Pharmaceuticals Corporation of Sri

Lanka in a rolling data submission procedure. This evaluation was performed by an independent panel of experts appointed by the NMRA and covers pharmaceutical & Clinical aspects required for emergency use supply of COVID-19 vaccine.

Submission of the dossier

FSBI Gamaleya National Centre of Epidemiology and Microbiology of Ministry of Health of Russia (Medgamal Branch of Gamaleya National Center of Epidemiology and Microbiology of the Ministry of Health of Russia), Russia. who is responsible for release and control of the SPUTNIK V vaccine manufactured at Generium Joint Stock Company (Generium JSC) Russia submitted the documents through State Pharmaceuticals Corporation of Sri Lanka on 8th January 2021 with the recommendation of Secretary, State Ministry of Production, Supply & Regulation of Pharmaceuticals to consider for approval for use in Sri Lanka.

The vaccine manufacturer has provided additional data and information requested by the panel of experts to advice NMRA under covering letter dated 2 March 2021. It was noted the enclosed submission has addressed all clarifications requested by NMRA (Letter dated 29.01.2021 & 08.02.2021).

Legal basis for review of the submission

- In terms of section (109) of the NMRA Act No.5 of 2015 which provides the Authority to grant permission for emergency supply of a particular medicine in special circumstances including, to control an outbreak of an infection or an epidemic.

- In terms of regulations No. 2149/25 for the issue of Lot Release Certificate for vaccines and sera No.1 of 2019, which provides Medical Research Institute (MRI) as the National Control Laboratory (NCL) to conduct lot release on all batches that would be supplied to Sri Lanka.

Eligibility of vaccine for expedited review

This vaccine is manufactured in country with a functional NRA (Ministry of Industry and Trade of the Russian Federation) producing WHO pre-qualified vaccines as per WHO's Global Benchmarking Tool (GBT).

Manufacturing Site

The following documents have been enclosed with the submission:

- Valid GMP certificate of manufacturing *site Generium Joint Stock Company (Generium*

JSC) 263 Zavodskaya, Street., Volginsky, Petushinsky district, Valdimir region, Russia (No. GMP-0034-000345/18 of 29th December 2018) by Ministry of Industry and Trade of the Russian Federation

- GMP certificate of manufacturer (release and control) - *Federal State Budgetary Institution (FSBI) "National Reserch Center for Epedemiology & Microbiology of Ministry of Health of the Russian Federation" ("Medgamal" branch of the Federal state Budgetary Institution" National Research center for Epidemiology & microbiology named after honorary academician N.F. Gamaleya" of the Ministry of Health of the Russia.*
  (No. GMP-0129-000218/18 of 23rd Jan 2018) by Ministry of Industry and Trade of the Russian Federation
- Marketing authorization of a Medicinal Product issued by Ministry of Health of the Russian Federation. (LP-006395 dated 11th August 2020)

Introduction

The vaccine is produced through biotechnology, without using the SARS virus pathogenic for humans. The vaccine contains two components: Component I and Component II. Component I includes a recombinant adenoviral vector that uses a serotype 26 human adenovirus carrying a SARS-CoV-2 protein S gene. Component II includes a serotype 5 human adenoviral vector carrying a SARS-CoV-2 protein S gene.

The vaccine induces the formation of humoral and cellular immunity to the coronavirus infection caused by the SARS-CoV-2 virus. This vaccine is indicated for prevention of the newly discovered coronavirus infection (COVID-19) in adults over the age of 18.

Manufacturer responsible for release and control confirmed that two brands of same vaccine are similar in terms of quality, safety and efficacy.

This vaccine is registered according registration procedure for drugs intended for use in the situation of a potential or actual emergency. Package insert is prepared based on limited clinical data and will be complemented as new data becomes available. The drug can only be administered at healthcare institutions authorized to vaccinate the population as per the established procedure.

SPUTNIK V vaccine is a solution for intramuscular injection stored at a temperature not

exceeding minus 18 ^{0}C. Store in a thawed state for no more than 2 hours. A single 3 mL vial contains 5 doses (each 0.5 mL)

Product Development

- This vaccine was developed by - *Federal State Budgetary Institution (FSBI) "National Research Center for Epidemiology & Microbiology of Ministry of Health of the Russian Federation" ("Medgamal" branch of the Federal state Budgetary Institution" National Research center for Epidemiology & microbiology named after honorary academician N.F. Gamaleya" of the Ministry of Health of the Russia.*

Working cell banks - HEK 293 cell lines are manufactured by Medgamal Branch, FSBI N.F. Gamaleya NRCEM, Ministry of Health of Russia

Viral seeds are manufactured by Medgamal Branch, FSBI N.F. Gamaleya NRCEM, Ministry of Health of Russia.

Quality aspects

The information is based on data submitted by *Federal State Budgetary Institution (FSBI) "National Reserch Center for Epidemiology & Microbiology of Ministry of Health of the Russian Federation" ("Medgamal" branch of the Federal state Budgetary Institution" National Research center for Epidemiology & microbiology named after honorary academician N.F. Gamaleya" of the Ministry of Health of the Russia.*

Quality aspects of the vaccine were reviewed.

Active Substance

Detailed process of manufacture, process control and characterization of drug substance, control of materials, control of critical steps and intermediates of active substance have been submitted.

The vaccine is produced in human embryonic kidney (HEK) 293 cells.

Manufacturing of drug substance

The manufacturer has provided details of the manufacture and testing of drug substance. A description of the manufacturing process and controls have been provided for each manufacturing step, including material inputs, critical and non-critical process parameters, and process outputs. The upstream process consists of reactivation of cell cultures (HEK) 293 cells, obtaining seed virus, cell cultivation and harvesting. The downstream process consists of lysis of the production bioreactor cell culture, clarification and further processing through a series

of purification/concentration steps to remove process-related impurities and then formulation with excipients and aseptic filtration.

Validation of manufacturing process of drug substance has been submitted.

The information provided has been evaluated and found to be satisfactory.

Substances-solutions of Component I and Component II are filled 50 mL, 1 L, 5 L, 10 L, 20 L or 50 L under aseptic conditions in Flexboy® disposable sterile polymer containers or 50 L in Flexel® 3D disposable sterile polymer containers manufactured by Sartorius Stedim Biotech GmbH, Germany.

Stability of the drug substance

Stability data for bulk concentrated solution (i.e. Drug Substance) batches have been submitted. It was satisfactory.

Finished Product

The vaccine is produced in human embryonic kidney (HEK) 293 cells. This product also contains the excipients - tris- (hydroxymethyl)aminomethane, sodium chloride, sucrose, magnesium chloride hexahydrate, EDTA-disodium salt dihydrate, polysorbate 80, ethanol 95%, water for injections up to 0.5 mL.

The finished product is packaged in multidose vials containing 3 ml of solution (5-dose) vial (neutral glass vial of hydrolytic class 1) with a rubber stopper and an aluminoplastic tamper – proof crimp cap. This product is Frozen solution. Appears as a dense, hardened, whitish mass. After thawing: homogeneous, colorless or with a yellowish hue, slightly opalescent solution

A component 1 (5 doses) or component 11 vial with package insert is placed in a cardboard pack. Draft labels are submitted and are acceptable.

Description of manufacturing process, characterization and process controls for the SIPI product has been provided and is satisfactory. All the processing equipment and consumables used in manufacturing of drug product do not contain any materials that considered specified TSE or BSE risk material.

The raw materials used in the manufacturing of the drug product are of synthetic origin hence does not pose TSE or BSE risk.

Packaging materials specifications (IP/Inhouse) and test data (COAs) are provided.

Stability data

Stability study data including test results with conclusion have been provided.

- Real time stability data for commercial batches are ongoing and data submitted for 3 months.

Lot release

Lot release certificates have been submitted.

Company has provided sufficient information to make a decision on the vaccine for using emergency situation. Quality of this medicinal product submitted in the emergency context of the current COVID-19 pandemic is considered to be sufficiently consistent and acceptable.

Information provided by *Federal State Budgetary Institution (FSBI) "National Reserch Center for Epidemiology & Microbiology of Ministry of Health of the Russian Federation" ("Medgamal" branch of the Federal state Budgetary Institution" National Reserch center for Epidemiology & microbiology named after honorary academician N.F. Gamaleya" of the Ministry of Health of the Russia. At 25, Gamalei st-123098, Moscow*

assures acceptable standards are in place at Generium Joint Stock Company (Generium JSC) 263 Zavodskaya, Street., Volginsky, Petushinsky district, Valdimir region, Russia

SECTION - 2

CLINICAL EVALUATION OF **SPUTNIK V vaccine manufactured by Generium Joint Stock Company (Generium JSC) 263 ZavodskayaStr., Volginsky settl., Petushinsky district, Valdimir region for** *FSBI Gamaleya National Centre of Epidemiology and Microbiology of Ministry of Health of Russia (Medgamal Branch of Gamaleya National Center of Epidemiology and Microbiology of the Ministry of Health of Russia), Russia.*

Combined vector vaccine for prevention of coronavirus infection caused by the SARS-CoV-2 virus (COVID-19) — Sputnik V vaccine manufactured in Russia.

Observations

The vaccine manufacturer/supplier has provided additional data and information requested by the panel of experts to advice the NMRA under covering letter 2 March 2021. It was noted the enclosed submission has addressed all clarifications requested by us (letter dated 08.02.2021). The panel carefully reviewed submitted data as well as research publications related to the Sputnik V *vaccine.*

Additional data related to pre-clinical studies, phase I & II clinical trials and interim results of phase III trials as well as pharmaceutical, manufacturing and quality-assurance information were

found to be satisfactory.

The panel was able to obtain further clarifications from the scientific team representing the manufacturer/developer of the vaccine in Russia through two virtual meetings held on 25.01.2021 and 25.02.2021.

Based on the review of above-referenced data, the panel is satisfied with the efficacy, safety and immunogenicity of the vaccine.

We also note, many contraindications / cautions to the use of this vaccine listed in the relevant product information leaflet (PIL).

Recommendation

Grant permission for emergency use for Component I and II of the vaccine subject to contraindications and cautions in the PIL.