CLINICAL RESEARCH IN INFECTIOUS DISEASES

STATISTICAL ANALYSIS PLAN
for
DMID Protocol: 14-0092
Study Title:
A Systems Biology Phase 1 Evaluation of the Safety, Reactogenicity, and Immunogenicity of Chimpanzee Adenovirus Type 3-vectored *Zaire ebolavirus* (ChAd3-EBO-Z) and Modified Vaccinia Ankara- vectored Multivalent Filovirus (MVA-BN®-Filo) Vaccine Candidates

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STUDY TITLE

Protocol Number Code:	DMID Protocol: 14-0092
Development Phase:	Phase 1
Products:	*Zaire ebolavirus* (ChAd3-EBO-Z) vaccine MVA-BN®-Filo Placebo
Form/Route:	Intramuscular injection into the deltoid muscle.
Indication Studied:	Ebola Disease
Sponsor:	Division of Microbiology and Infectious Diseases National Institute of Allergy and Infectious Diseases National Institutes of Health
Clinical Trial Initiation Date:	October 24, 2018
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This study was performed in compliance with Good Clinical Practice.

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LIST OF ABBREVIATIONS

Ad	Adenovirus
ADCC	Antibody-Dependent Cell-Mediated Cytotoxicity
AE	Adverse Event
ALT	Alanine Transaminase
ANC	Absolute Neutrophil Count
BCR	B-cell receptor
BDBV	*Bundibugyo ebolavirus*
BMI	Body Mass Index
BP	Blood Pressure
Bpm	Beats per Minute
BUN	Blood Urea Nitrogen
ChAd3	Chimpanzee adenovirus Type 3
CONSORT	Consolidated Standards of Reporting Trials
CRF	Case Report Form
CRP	C-reactive protein
CSR	Clinical Study Report
DCC	Data Coordinating Center
DHHS	Department of Health and Human Services
DMID	Division of Microbiology and Infectious Diseases, NIAID, NIH, DHHS
EBOV	*Zaire ebolavirus*
eCRF	Electronic Case Report Form
EVD	Ebola virus disease
FDA	Food and Drug Administration
GCP	Good Clinical Practice
GMFR	Geometric mean fold rise
GMT	Geometric mean titer
GP	Glycoprotein
GSK	GlaxoSmithKline
HBsAg	Hepatitis B Surface Antigen
HCV	Hepatitis C
Hgb	Hemoglobin
HgbA1C	Hemoglobin A1C
HIV	Human Immunodeficiency Virus
HRSA	Health Resources and Services Administration

List of Abbreviations *(continued)*

IB	Investigator's Brochure
ICF	Informed Consent Form
ICH	International Conference on Harmonisation
IM	Intramuscular
IND	Investigational New Drug Application
IU	Infectious Units
ITT	Intent-to-Treat
MAAE	Medically Attended Adverse Event
MARV	Marburg virus
MedDRA®	Medical Dictionary for Regulatory Activities
MOP	Manual of Procedures
MVA	modified vaccinia Ankara
N	Number (typically refers to subjects)
NIAID	National Institute of Allergy and Infectious Diseases, NIH, DHHS
NIH	National Institutes of Health
PI	Principal Investigator
PP	Per-Protocol
PT	Prothrombin Time
PTT	Partial thromboplastin Time
PREP	Public Readiness and Emergency Preparedness
SAE	Serious Adverse Event
SAP	Statistical Analysis Plan
SMC	Safety Monitoring Committee
SOC	System Organ Class
SUDV	*Sudan ebolavirus*
TAFV	*Taï Forest ebolavirus*
US	United States
VLP	Virus-like particle
VRC	Vaccine Research Center
VSV	Vesicular stomatitis virus
VTEU	Vaccine and Treatment Evaluation Unit
WBC	White Blood Cell
WHO	World Health Organization
WT	Wild_type

1. PREFACE

The Statistical Analysis Plan (SAP) for "A Systems Biology Phase 1 Evaluation of the Safety, Reactogenicity, and Immunogenicity of Chimpanzee Adenovirus Type 3- vectored Zaire ebolavirus (ChAd3-EBO-Z) and Modified Vaccinia Ankara- vectored Multivalent Filovirus (MVA-BN®-Filo) Vaccine Candidates" (DMID Protocol 14-0092) describes and expands upon the statistical information presented in the protocol.

This document describes all planned analyses for primary, secondary, and exploratory outcomes that assess neutralizing antibodies and the reasons and justifications for these analyses. It also includes sample tables, listings, and figures planned for the final analyses. These analyses and Clinical Study Report (CSR) follow the International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) Guidelines, as indicated in Topic E3 (Structure and Content of Clinical Study Reports), Topic E8 (General Considerations for Clinical Trials), and Topic E9 (Statistical Principles for Clinical Trials). The structure and content of the SAP provides sufficient detail to meet the requirements identified by the FDA and ICH, while all work planned and reported for this SAP will follow internationally accepted guidelines published by the American Statistical Association and the Royal Statistical Society for statistical practice.

This document contains four sections: (1) a review of the study design, (2) general statistical considerations, (3) statistical analysis methods for primary safety and secondary and exploratory antibody endpoints, and (4) table, figure, and listing templates.

Any deviation from this SAP will be described and justified in protocol amendments and/or the CSR, as appropriate. The reader of this SAP is encouraged to also review the study protocol for study conduct details and the operational aspects of clinical assessments.

Analysis of the remaining exploratory endpoints including systems biology endpoints are described in the addendum to this SAP.

2. INTRODUCTION

This is a Phase 1, randomized, double-blind trial of 60 evaluable males and non-pregnant females, 18-45 years old, inclusive, who are in good health, meet all eligibility criteria, and do not meet any exclusion criteria. This trial is designed to assess the safety, reactogenicity and immunogenicity of a chimpanzee adenovirus vector expressing *Zaire ebolavirus* glycoprotein (ChAd3-EBO-Z) vaccine with or without MVA-BN®-Filo boost for the prevention of Ebola virus disease. ChAd3-EBO-Z will be administered intramuscularly on Day 1 followed by either placebo (Group 1), ChAd3-EBO-Z (Group 2), or MVA- BN®-Filo (Group 3) at Day 8.

2.1. Background Information

Ebola viruses are RNA viruses in the family Filoviridae. Ebola viruses have been associated with sporadic outbreaks characterized by severe hemorrhagic disease and high case fatality ratios. *Zaire ebolavirus* (EBOV) and *Sudan ebolavirus* (SUDV) were both identified in 1976 during two simultaneous outbreaks in Zaire (now Democratic Republic of the Congo) and Sudan, respectively [1]. *Taï Forest ebolavirus* (TAFV) arose in Côte d'Ivoire in 1994 and was noted to be distinct from both EBOV and SUDV [2]. Since 1994, outbreaks of Ebola virus disease (EVD) have occurred almost yearly, with the Democratic Republic of Congo being the most frequently affected. *Bundibugyo ebolavirus* (BDBV) is the most recently described member of the genus, identified in Uganda in 2007 [2]. A fifth member of the genus, *Reston ebolavirus*, was described in 1990 but is not known to cause human disease [3]. The natural reservoir of the related filovirus Marburg virus (MARV) has been identified as the Egyptian fruit bat [4 and 5]. The natural reservoir for Ebola viruses is less certain, although fruit bats are likely involved in transmission events to non-human primates and to humans. After an incubation period ranging from 2-21 days, Ebola-associated EVD manifests initially with nonspecific symptoms such as fever, headaches, muscle pain, joint pain, general malaise and gastrointestinal symptoms and in a minority of cases involve hemorrhagic complications [6 and 7]. One of the most concerning aspects of filovirus outbreaks in humans is the high mortality rate observed. Case fatality rates for EVD measured using World Health Organization (WHO) data prior to 2015 revealed on overall rate of 65.4%, which ranged by species from 76% for EBOV to 55% for SUDV and 37% for BDBV [8]. The case fatality rate tends to be highest in the earliest days of an outbreak due to reporting bias of severe cases. The availability of intensive medical support may also influence the outcome, since the case fatality rate was substantially lower among repatriated US and European patients during the 2014 outbreak of EBOV [9]. While it may be postulated that the experimental clinical interventions that these patients received contributed to their outcomes, the same phenomenon was seen in 1967 in the Marburg outbreak [10] where 31 patients were cared for using only modern supportive care measures including dialysis; the case fatality rate was 22%.

Development of therapeutics and of preventive vaccines against filoviruses is a high global public health priority. The importance of this effort was greatly magnified by the scope of the 2014-2016 West African outbreak of EBOV. The outbreak began in Guinea with an index case of a 2-year-old child who died from EVD in December 2013 [11]. The outbreak subsequently became the largest EVD outbreak in history, involving predominantly Guinea, Sierra Leone, and Liberia. According to the WHO, this outbreak involved 28,610 cases and 11,308 deaths (as of March 30, 2016). Importantly, healthcare workers were disproportionally affected, and this resulted in further challenges in the care of EVD patients. Imported cases in Western countries stimulated additional attention to the epidemic and illustrated the potential for global impact beyond the affected areas in Africa. The extent of the epidemic and the lack of proven therapies and vaccines made further research on Ebola an urgent priority.

Vaccines against Ebola viruses and MARV are under development by a number of academic investigators and manufacturers [12 and 13]. Developing a safe and effective vaccine against filoviruses is likely to require a

greater understanding of the nature of protective immunity against these agents. Animal data support the importance of antibody-mediated protection in studies with DNA prime-adenovirus boost, Ebola virus-like particles (VLPs), vesicular stomatitis virus (VSV)-based vaccines, and parainfluenza virus-based vaccines [14]. In contrast, a recombinant adenovirus serotype 5 (Ad5) EBOV vaccine protected macaques from infection primarily through the activity of CD8+ T cell responses [15]. Acute protection from EBOV in macaques was also elicited by a chimpanzee Ad3 vector EBOV vaccine, and protection correlated with antibody responses, while long-term protection in this study required functional CD8+ T cell responses and was enhanced with a modified vaccinia Ankara (MVA) boost [16]. Therefore, there is currently evidence supporting both antibody-mediated protection and cell-mediated protection against filoviruses. Our understanding of immune correlates of protection is limited largely to animal models, as the sporadic nature of Ebola outbreaks offers limited opportunities for examining protection in humans. It is notable that in the intensely studied patients cared for at Emory University in 2014 the resolution of viremia correlated with the presence of activated CD8 T cells and this occurred prior to the presence of detectable IgG antibody response [17].

2.2. Rationale

Development of a vaccine to protect from infection or disease caused by EBOV is a national priority. No licensed vaccines or therapeutics are currently available for EVD. The extensive EBOV outbreak in West Africa during 2014-2016 illustrates the urgent need for preventive measures against Ebola. This Phase 1 vaccine trial will provide a unique opportunity to define innate immune responses elicited by a promising chimpanzee adenovirus vector expressing *Zaire ebolavirus* glycoprotein (EBOV GP). This trial offers a chance to compare responses elicited by homologous vs. heterologous boosting using a rapid vaccination schedule. The study may also have applicability beyond Ebola as the vaccine vectors (ChAd and MVA) are being used to develop vaccines against other pathogens.

The Vaccine Research Center of the National Institute of Allergy and Infectious Diseases (VRC/ NIAID), National Institutes of Health (NIH) in the United States of America (US) has been developing replication-defective recombinant chimpanzee adenovirus Type3-vectored monovalent and bivalent filovirus vaccine candidates. These include monovalent ChAd3-EBO-Z for EBOV and ChAd3-MARV for MARV, as well as bivalent ChAD3-EBO (EBOV + SUDV). ChAd3 recombinants were developed using the Okairos adenovirus vaccine platform technology acquired by GlaxoSmithKline (GSK) in May 2013 [18]. The DNA fragment inserted in ChAd3-EBO-Z encodes the wild-type (WT) glycoprotein (GP) from the species EBOV. GP is expressed on the surface of the virus and is critical for attachment to host cells and catalysis of membrane fusion. GP is the major target for neutralizing antibody responses against Ebola viruses and contains cytotoxic T lymphocyte and T helper epitopes that contribute to protection in animal models [15 and 16].

Pre-clinical immunogenicity and efficacy studies were conducted with the investigational ChAd3-EBO-Z vaccine and with the investigational ChAd3-EBO (bivalent) vaccine in cynomolgus macaques. Overall, it was shown that a single intramuscular (IM) dose of $1x10^9$ or $1x10^{10}$pu of either monovalent or bivalent vaccine elicited anti-GP antibodies and antigen-specific CD4+ and CD8+ T-cell responses. 100% of macaques receiving a single IM dose of 10^{10} - 10^{11} pu of the bivalent ChAd3-EBO were protected from against EBOV or SUDV challenge 4-5 weeks after vaccination, whereas a dose of $1x10^9$ pu provided protection in half of the vaccinated cynomolgus macaques. ChAd3-EBO-Z given at 10^{10} or 10^{11} pu was 100% protective against EBOV challenge at 4-5 weeks post-vaccination. Ten months after vaccination, the humoral and the cellular immune response had declined, and protection against EBOV challenge was observed in half of the animals who had received a dose of 10^{11} pu and in none of the animals who had

received a dose of $1x10^{10}$ pu [16]. Durability of protection was extended to ten months in macaques receiving ChAd3-EBO priming followed by bivalent (EBOV, SUDV GP) MVA boosting [16].

Phase 1 and Phase 2 trials support the use of replication-defective adenovirus approaches to stimulate Ebola-specific immune responses in humans. VRC 205 evaluated two replication-defective recombinant Ad5 vectors that encoded GP from the species EBOV and SUDV, respectively. Antigen-specific humoral and cellular responses were observed following a single intramuscular injection and the vaccine was generally safe and well-tolerated [19]. VRC 207 evaluated bivalent ChAd3-EBO in healthy adults. At 4 weeks after vaccination, vaccine-induced antibodies to EBOV GP were present in 90% of individuals receiving 2×10^{10} pu dose and 100% of individuals receiving a 2×10^{11} pu dose. GP-specific CD8 T cell responses were detected in 20% of individuals by week 4 in the lower dose group and 70% of individuals receiving the higher dose. Overall the study supported the safety and immunogenicity of a single dose of ChAd3-EBO in humans [20]. ChAd3-EBO-Z is a monovalent vaccine that has also been evaluated in a series of trials (a total of 15 clinical trials enrolling approximately 5,000 subjects) in U.S. and international sites, either with or without MVA boost. In a phase 1 study performed in the United Kingdom, a single dose of ChAd3-EBO-Z was administered to 60 healthy adult volunteers. No significant safety concerns with ChAd3-EBO-Z were identified in this study. Boosting with MVA- BN®-Filo (described below) significantly enhanced GP-specific antibody and CD8+ T cell responses that were elicited by ChAd3-EBO-Z, and antibodies remained higher in the boosted subjects 6 months after vaccination [21]. A phase 1 trial performed in the United States and in Mali during the West African Ebola epidemic also evaluated ChAd3-EBO-Z prime and MVA- BN®-Filo boost. Safety was again demonstrated, and a 1×10^{11} pu dose of ChAd3-EBO-Z was identified as sufficiently immunogenic to move forward as a potential means of interrupting transmission in the African setting. Boosting with MVA- BN®-Filo increased the magnitude and extended the duration of antibody responses and anamnestic polyfunctional CD4+ and CD8+ T cell responses [22]. A phase 2 trial performed in Liberia enrolled 500 adults who received a single dose of ChAd3-EBO-Z. Side effects were not severe, and anti-GP antibodies developed in 70% of participants by 1 month and remained detectable at 12 months in 63.5% of participants [23].

The MVA multi-filovirus vaccine from Bavarian Nordic (MVA-mBN226B, referred to subsequently as MVA- BN®-Filo) encodes the GPs of EBOV, SUDV, and MARV, together with the nucleoprotein (NP) of TAFV. Since GP is the surface glycoprotein, it is the natural target of neutralizing antibodies, which often (but not always) correlate with protection in animal models [24]. The major targets of cellular immunity in humans are the NP followed by the GP protein [17]. Therefore, the potential with this vaccine is to elicit protective antibodies against three major filoviruses as well as potentially cross-protective cellular immunity [25]. MVA is an attenuated poxvirus derived by more than 500 serial passages in chicken embryo fibroblast cells and contains well-studied internal deletions that account for its low virulence. Phase 3 trial data with the Bavarian Nordic MVA backbone demonstrates immunogenicity and a reasonable side effect profile in Phase 3 clinical trials. The clinical safety profile of MVA-based recombinant vaccines has been established in numerous Phase 1 and Phase 2 trials [26 and 27]. Immunogenicity studies of MVA multi-filovirus vaccine in nonhuman primates (NHPs) demonstrated substantial binding and neutralizing antibodies against EBOV, SUDV, and MARV. Some protection in MVA-BN®-Filo vaccine recipient NHPs was observed. However, the use of a heterologous prime-boost regimen with recombinant adenovirus-based vaccines resulted in much more complete levels of protection. In these NHP studies, protection was observed regardless of the order of the prime or boost. These results led to a series of trials in humans combining replication-defective adenovirus vectors and MVA-BN®-Filo. Under Janssen's sponsorship, three Phase 1 clinical trials have completed recruitment and data for the clinical study reports (CSR) are being analyzed; one Phase 1, three Phase 2 and three Phase 3 clinical trials are ongoing and actively recruiting. In addition, a first-in-human Phase 1 clinical trial of a combination regimen of the multivalent Ad26.Filo as

prime in combination with MVA-BN®-Filo as boost vaccination is currently ongoing. In the ongoing clinical trials, MVA-BN®-Filo is administered as prime or as boost in different heterologous prime-boost regimens in combination with Ad26.ZEBOV or Ad26.Filo (multivalent). The current experience amounts to more than 1,700 subjects that have been enrolled in the completed and ongoing clinical trials and no safety concerns have arisen from the ongoing clinical program.

2.3. Purpose of the Analysis

The current clinical study has two major objectives. First, to further characterize and better understand whether innate immune responses as measured at early time points following vaccination with ChAd-EBO-Z are associated with late endpoints such as neutralizing antibody titers, T cell responses, and potentially protection from EVD. Second, to evaluate the effect of homologous or heterologous boosting, with a short interval employed between prime and boost vaccination. The advantage of the short interval is that it minimizes the risk of post-immunization anti-vector (ChAd3) antibodies interfering with the boost response and differs from other studies such as 14-day intervals as tested in NCT02451891 in which the adaptive response had already evolved significantly. A short interval also has the potential advantage of accelerating the development of immune responses for those at risk in an outbreak setting or for aid workers deployed to outbreak areas. This trial will employ systems biology tools [28], in addition to immunology and clinical chemistry methods, to explore whether the kinetics, magnitude and profile of host responses following first and second vaccination can provide insights into potential mechanisms of protection and the differences between protective and non-protective states.

3. STUDY OBJECTIVES AND ENDPOINTS

3.1. Study Objectives

3.1.1. Primary

- Assess the safety and reactogenicity of study products by study group when administered IM to healthy adults.

3.1.2. Secondary

- Assess the antibody response to Zaire ebolavirus (EBOV) glycoprotein (GP) by study group.

3.1.3. Exploratory

- Assess the EBOV neutralizing antibody titers by study group.
- Assess antibody functionality by antibody-dependent cell-mediated cytotoxicity (ADCC) responses by study group.
- Assess activation of CD4+ and CD8+ T cells in multiple cell subpopulations by study group.
- Assess inflammation via cytokine secretion and C-reactive protein (CRP) by study group.
- Assess EBOV GP-specific T cell responses by study group.
- Assess ChAd3-specific T cell responses by study group.
- Assess plasmablast frequencies by study group.
- Assess B-cell receptor (BCR) repertoire by study group.
- Assess and characterize change in gene expression in PBMCs by study group.
- Identify gene expression changes associated with adaptive humoral and/or cellular immune responses.

3.2. Study Outcome Measures

3.2.1. Primary

- Frequency and severity of solicited local and systemic reactogenicity from the time of study vaccine administration through 7 days post-vaccination.
- Frequency and severity of vaccine-related unsolicited adverse events (AEs) from the first study vaccination through 28 days post second vaccination.
- Frequency and severity of clinical safety laboratory AEs from the time of first study vaccination through approximately 28 days after the second vaccination.
- Frequency of Serious Adverse Events (SAEs) and vaccine-related Medically Attended Adverse Events (MAAEs) through 6 months post first vaccination.

3.2.2. Secondary

- Seroconversion defined as anti-EBOV GP ELISA titer > 50 if baseline (Day 1) titer ≤ 50 or fold rise ≥ 4 as compared to baseline if baseline titer > 50 on Day 8, 15, 22, 29 and 36.
- Geometric mean titer (GMT) on Day 1, 8, 15, 22, 29 and 36 as measured by anti-EBOV GP ELISA.
- Geometric mean fold rise (GMFR) in titer on Day 8, 15, 22, 29 and 36 compared to baseline (Day 1) as measured by anti-EBOV GP ELISA.

3.2.3. Exploratory

- GMT of neutralizing antibodies to EBOV GP at Day 1, 8 and 15 as measured by EBOV GP pseudovirion neutralization assay.
- GMFR in titer on Day 8 and 15 compared to baseline (Day 1) as measured by EBOV GP pseudovirion neutralization assay.
- Change in the percentage of killed cells as measured by ADCC on Day 8, 15, 22, 29, and 36 compared to baseline (Day 1).
- Change in percentage of activated CD4+ and CD8+ T cells for each cell subpopulation on Day 8 and 15 compared to baseline (Day 1) as measured by flow cytometry.
- Change in cytokine concentration and CRP on Day 2, 3, 4, 6, 8, 9 and 15 compared to baseline (Day 1) as measured by Luminex assay and clinical laboratory CRP assay, respectively.
- Change in percentage of EBOV GP-specific cytokine secreting CD4+ and CD8+ T cells on Day 8, 15, 22, and 36 compared to baseline (Day 1) as measured by intracellular cytokine staining (ICS).
- Change in percentage of EBOV GP-specific CD4+ and CD8+ T cells on Day 8 and 15 as compared to baseline (Day 1) measured by tetramer staining for predominant human leukocyte antigen (HLA) types.
- Change in percentage of ChAd3-specific cytokine secreting CD4+ and CD8+ T cells on Day 8, 15, 22 and 36 compared to baseline (Day 1) as measured by ICS.
- Change in percentage of CD19+CD27+CD38+ plasmablasts on Day 8 and 15 compared to baseline (Day 1) as measured by flow cytometry.
- Change in B-cell repertoire (BCR) on Day 8 and 15 as compared to baseline (Day 1) from sorted CD19+ CD27+ CD38+ plasmablasts as measured by immunoglobulin heavy chain sequencing.
- Characterization of antigen-specific BCR as measured by yeast display on day 36.
- Change in gene expression in PBMCs on Day 2, 3, 4, 6, 8, 9, and 15 compared to baseline (Day 1) as measured by RNA-Seq.
- Identification of gene expression changes on Day 2, 3, 4, 6, 8, 9, and 15 associated with each subject's peak change in percentage of EBOV GP-specific cytokine secreting CD4+ and CD8+ T cells across Day 15, 22, and 36.
- Identification of gene expression changes on Day 2, 3, 4, 6, 8, 9, and 15 associated with each subject's peak anti-EBOV GP ELISA titer across Day 15, 22, 29, and 36.

- Identification of gene expression changes on Day 2, 3, 4, 6, 8, 9, and 15 associated with each subject's EBOV neutralizing antibody titer at Day 15.
- Identification of gene expression changes on Day 2, 3, 4, 6, 8, 9, and 15 associated with each subject's peak percentage of killed cells as measured by ADCC across Day 15, 22, 29, and 36.

3.3. Study Definitions and Derived Variables

Safety variables are described in Section 4.5.1 of this document. For endpoints to assess antibody responses against Ebola virus glycoproteins using an ELISA (anti-EBOV GP ELISA), the following seroconversion definition will be applied:

- Anti-EBOV GP ELISA titer > 50 if baseline (Day 1) titer $\leq$ 50 or fold rise $\geq$ 4 as compared to baseline if baseline titer > 50 on Day 8, 15, 22, 29 and 36.

4. INVESTIGATIONAL PLAN

4.1. Overall Study Design and Plan

This is a Phase 1, randomized, double-blind trial of 60 males and non-pregnant females, 18-45 years old, inclusive, who are in good health and meet all eligibility criteria. This trial was designed to assess the safety, reactogenicity and immunogenicity of a *Zaire ebolavirus* vaccine (ChAd3-EBO-Z) for the prevention of EVD. Vaccine will be administered intramuscularly in a single dose regimen on Day 1 followed by a booster dose at Day 8 for all groups (group 1: placebo boost, group 2: ChAd3-EBO-Z boost, group 3: MVA-BN®-Filo boost). Potential subjects were screened by history, physical exam, vital signs, height and weight, and clinical laboratory tests prior to enrollment. Subjects were randomized in double-blind fashion to one of three vaccine schedules: 1 dose of ChAd3-EBO-Z vaccine at Day 1 followed by a booster dose at Day 8 (Table 1).

4.2. Discussion of Study Design, Including the Choice of Control Groups

This was a double-blind clinical trial. Subjects, investigators, study personnel performing any study-related assessments were blinded to treatment arm assignment (i.e., type of booster). The inclusion of the Placebo boost allows for the assessment of the boosting effect for Study Arms 2 and 3 relative to a single dose (Study Arm 1) accounting for any Dose 1-related effects that extended beyond Day 8.

4.3. Selection of Study Population

Sixty males and non-pregnant females, 18-45 years old, inclusive, who are in good health and meet all eligibility criteria, were enrolled from a single Vaccine and Treatment Evaluation Unit (VTEU) site. The target population was to reflect the community at large at the participating VTEU site. Estimated time to complete enrollment in this trial was approximately 5 months. Information regarding this trial was provided to potential subjects who have previously participated in vaccine trials conducted at the participating VTEU site. Other forms and/or mechanisms of recruitment might also have been used.

4.3.1. Subject Inclusion Criteria

Subjects eligible to participate in this study must meet all of the following inclusion criteria:

1. Provide written informed consent before initiation of any study procedures.
2. Are able to understand and comply with planned study procedures and be available for all study visits/phone calls.
3. Males or non-pregnant females ages 18-45, inclusive.
4. Subject must have a body mass index (BMI) ≥18.5 and <35 kg/m^2.
5. Are in good health*

* *As determined by medical history and physical examination to evaluate acute or currently ongoing chronic medical diagnoses or conditions, defined as those that have been present for at least 90 days which would affect the assessment of the safety of subjects or the immunogenicity of study vaccinations. Chronic medical diagnoses or conditions should be stable for the last 60 days (no hospitalizations, ER or urgent care for condition and no adverse symptoms that need medical intervention such as medication change/supplemental oxygen). This includes no change in chronic prescription medication, dose, or frequency as a result of deterioration of the chronic medical diagnosis or condition in the 60 days prior to enrollment. Any prescription change that is due to change of health care provider, insurance company, etc., or that is done for financial reasons, as long as in the same class of medication, will not be considered a deviation of this inclusion criterion. Any change in prescription medication due to improvement of a disease outcome, as determined by the site*

principal investigator or appropriate sub-investigator, will not be considered a deviation of this inclusion criterion. Subjects may be on chronic or as needed (prn) medications if, in the opinion of the site principal investigator or appropriate sub-investigator, they pose no additional risk to subject safety or assessment of reactogenicity and immunogenicity and do not indicate a worsening of medical diagnosis or condition. Similarly, medication changes subsequent to enrollment and study vaccination are acceptable provided there was no deterioration in the subject's chronic medical condition that necessitated a medication change, and there is no additional risk to the subject or interference with the evaluation of responses to study vaccination. Note: Topical, nasal, and inhaled medications (apart from steroids as outlined in the Subject Exclusion Criteria), herbals, vitamins, and supplements are permitted.

6. Oral temperature is less than 100.0 °F (37.8ºC).
7. Pulse is 47 to 105 beats per minute (bpm), inclusive.
8. Systolic blood pressure (BP) is 85 to 150 mm Hg, inclusive.
9. Diastolic blood pressure (BP) is 55 to 95 mm Hg, inclusive.
10. Have acceptable screening laboratories[#&] within 28 days prior to enrollment (Refer to Appendix C in the protocol for acceptable screening values.)

    [#]Screening labs include white blood cell (WBC), Hgb, platelet count, ANC, sodium, potassium, creatinine, albumin, total protein, PT, PTT, alanine aminotransferase (ALT). Blood Urea Nitrogen (BUN) will be obtained only if creatinine is above normal range.

    [&]Screening laboratory values that are outside the range of eligibility but are thought to be due to an acute condition or due to laboratory error may be repeated once. [see Manual of Procedures (MOP)]
11. Have normal screening laboratories for urine protein. Trace protein is acceptable.
12. Drug screen for opiates is negative.
13. Hemoglobin A1C (HgbA1C) <6.3% at screening.
14. HIV 1/2 antibody negative.
15. HCV antibody negative.
16. HBsAg negative.
17. Women of childbearing potential[‡], must be using an effective method of contraception[§] from 30 days prior to the first study vaccination until 90 days after the second study vaccination.

    ‡ Not sterilized via tubal ligation, bilateral oophorectomy, hysterectomy,successful Essure® placement (permanent, non-surgical, non-hormonal sterilization) with history of documented radiological confirmation test at least 90 days after the procedure (or with use of another birth control method if history of confirmation test not confirmed), still menstruating, or < 1 year of the last menses if menopausal.

    § Includes, but is not limited to, non-male sexual relationships, abstinence from sexual intercourse with a male partner, monogamous relationship with a vasectomized partner, male condoms with the use of applied spermicide, intrauterine devices, NuvaRing®, and licensed hormonal methods such as implants, injectables or oral contraceptives ("the pill").
18. Women of childbearing potential must have a negative serum pregnancy test at screening and a negative urine pregnancy test within 24 hours prior to each study vaccination.
19. Women agree to not donate eggs (ova, oocytes) from the start of screening onwards until at least 90 days after the second vaccination.
20. Agrees not to participate in another clinical trial during the study period.
21. Agrees not to donate blood to a blood bank for 3 months after receiving the second study vaccine.

4.3.2. Subject Exclusion Criteria

Subjects eligible to participate in this study must not meet any of the following exclusion criteria:

1. Women who are pregnant, planning to become pregnant or lactating*.

   * *Includes breastfeeding or planning to breastfeed at any given time from the receipt of study vaccination through the 6-month trial period.*

2. Known allergy or history of anaphylaxis, severe local or other serious adverse reactions to vaccines or vaccine products[%], or history of severe allergic reactions.

   [%] *Includes a known allergy to egg, egg products and aminoglycosides or any of the constituents of the study vaccines [e.g., polysorbate 80, ethylenediaminetetraacetic acid (EDTA), L-histidine, tris (hydroxymethyl)-amino methane (THAM)).*

3. Received an experimental agent[5] within 3 months prior to Day 1, or expects to receive an experimental agent[6] during the 6-month trial-reporting period.

   [5] *Including vaccine, drug, biologic, device, blood product, or medication.*

   [6] *Other than from participation in this study.*

4. Received immunoglobulin or other blood product within 3 months before enrollment in this study.
5. Received any licensed live vaccine within 30 days prior to the first study vaccination through 30 days after the second study vaccination.
6. Received a licensed inactivated vaccine within 14 days prior to the first study vaccination through 14 days after the second study vaccination.
7. Has been vaccinated with an Ebola vaccine.
8. Has been diagnosed with Ebola disease, or exposed to Ebola virus including travel to West Africa^ in 2014-2016.

   ^ *West Africa includes but is not limited to the countries of Guinea, Liberia, Mali, Nigeria, and Sierra Leone.*

9. Known or suspected receipt of ChAd3-EBO-Z or other ChAd3-vectored vaccine.
10. Known or suspected receipt of an adenovirus serotype 5 (Ad5)-based vaccine.
11. Known or suspected receipt of any licensed or investigational small pox (vaccinia)-based vaccine[#].

    [#] *Includes any MVA-based candidate vaccine (Imvamune or Imvanex), Dryvax, or Acam2000.*

12. Has a typical vaccinia scar.
13. Confirmed Asplenia/Functional Asplenia.
14. A history of bleeding or clotting disorders.
15. Thyroidectomy or thyroid disease requiring medication during the last 12 months.
16. History of chronic urticaria (recurrent hives).
17. Individuals in whom the ability to observe possible local reactions at the eligible injection sites (left and right deltoid region) is, unacceptably obscured due to a physical condition or permanent body art.
18. Have an acute illness[#], as determined by the site PI or appropriate sub-investigator, within 72 hours prior to study vaccination.

[#] *An acute illness which is nearly resolved with only minor residual symptoms remaining is allowable if, in the opinion of the site PI or appropriate sub-investigator, the residual symptoms will not interfere with the ability to assess safety parameters as required by the protocol. Subjects may re-screen after an acute illness is resolved.*

19. Any confirmed or suspected immunosuppressive or immunodeficient condition* or use of anticancer chemotherapy or radiation therapy (cytotoxic) within 3 years prior to study vaccination

    * *including HIV infection.*

20. Administration of chronic (defined as more than 14 days) immunosuppressants or other immune modifying drugs within 6 months of receipt of study vaccine.
21. Have taken oral or parenteral (including intraarticular) corticosteroids of any dose within 30 days prior to study vaccination.
22. Have taken high-dose[3] dose inhaled corticosteroids within 30 days prior to study vaccination.

    [3] *High-dose defined using the inhaled high-dose reference chart (Appendix B in the protocol).*

23. Have a history of convulsions or encephalomyelitis within 90 days prior to study vaccination.
24. Current or past history of alcohol or drug abuse in the last 5 years.
25. Subjects with autoimmune disorders, chronic inflammatory disorders or neurological disorders with a potential autoimmune correlation.
26. Have any diagnosis, current or past, of schizophrenia, bipolar disease, or other psychiatric diagnosis that may interfere with subject compliance or safety evaluations.
27. Have been hospitalized for psychiatric illness, history of suicide attempt, or confinement for danger to self or others within 10 years prior to study vaccination.
28. Have received any antiviral within 3 days of study vaccination
29. History of myocarditis, pericarditis, cardiomyopathy, transient ischemic attack or stroke, myocardial infarction, angina, coronary artery disease, congestive heart failure, clinically significant arrhythmia*

    * *including any arrhythmia requiring medication, treatment, or clinical follow-up.*

30. Electrocardiogram (ECG) with clinically significant findings.*

    * *Clinically significant findings include the following:*

    a. *Conduction disturbance (complete left or complete right bundle branch block or nonspecific intraventricular conduction disturbance with QRS ≥120 ms, PR interval ≥210 ms, any second- or third-degree atrioventricular block, or prolongation of the QT interval corrected according to Bazett's formula [QTcB] [>450 ms]).*
    b. *Significant repolarization (ST-segment or T-wave) abnormality.*
    c. *Significant atrial or ventricular arrhythmia; frequent atrial or ventricular ectopy (e.g., frequent premature atrial contractions, 2 premature ventricular contractions in a row).*
    d. *ST-elevation consistent with ischemia or evidence of past or evolving myocardial infarction*

31. A diagnosis of Type I or II diabetes. (A history of isolated gestational diabetes is not an exclusion criterion).
32. Current employee or staff paid entirely or partially by the contract for this trial, or staff who are supervised by the PI or Sub-Investigators.

33. Any condition that would, in the opinion of the Site Investigator or appropriate sub-investigator, is a contraindication to study participation.*

    * *Including acute or chronic (persisting for at least 90 days) clinically significant medical disease or condition, that would place the subject at an unacceptable risk of injury, render the subject unable to meet the requirements of the protocol, or may interfere with the evaluation of responses or the subject's successful completion of the study.*

4.4. Treatments

4.4.1. Treatments Administered

Zaire ebolavirus (ChAd3-EBO-Z) vaccine, consisting of a recombinant, replication-defective chimpanzee adenovirus (Ad) type 3 (ChAd3)-derived vector expressing the *Zaire ebolavirus* glycoprotein (GP) was administered by intramuscular (IM) injection into the deltoid muscle in a single dose of 2×10^{11} vp virus particles.

MVA-BN®-Filo 1×10^{8} Infectious Units (IU) of replication defective MVA-BN®-Filo was administered in the form of an injection into the deltoid muscle (heterologous boost together with 2×10^{11} vp ChAd3-EBO-Z).

Sodium Chloride Injection USP, 0.9% (NaCl 0.9%, Normal Saline) was used as the placebo booster injection into the deltoid muscle.

4.4.2. Identity of Investigational Product(s)

See the study manual of procedures for details of study product formulation. Additional details are included in the investigator's brochure for each investigational product.

4.4.3. Method of Assigning Subjects to Treatment Groups (Randomization)

Once consented and upon entry of demographic data and confirmation of eligibility for this trial, the subjects were enrolled. Subjects were randomized 1:1:1 in double-blind fashion to 1 dose of ChAd3-EBO-Z vaccine at Day 1 followed by a booster of placebo, ChAd3-EBO-Z (homologous), or MVA-BN®-Filo (heterologous) at Day 8.

Enrollment of subjects was done online using the enrollment module of AdvantageEDC℠. The randomization code was prepared by statisticians at the SDCC and included in the enrollment module for this trial. AdvantageEDC℠ was used to assign each subject to a treatment arm after the demographic and eligibility data had been entered into the system.

Subjects who signed the informed consent form and were randomized but did not receive study vaccine may have been replaced. Subjects who signed the informed consent form, and were randomized and vaccinated, and subsequently withdrew, or were withdrawn or terminated from this trial, or were lost to follow-up might have been replaced.

4.4.4. Selection of Doses in the Study

The dosing was recommended by the manufacturers based on results from multiple previous clinical trials.

4.4.5. Selection and Timing of Dose for Each Subject

The rationale for the short prime-boost (timing between Dose 1 and 2) schedule was to assess suitability to provide protective immunity rapidly in an outbreak setting. In addition, it minimizes the risk of post-immunization anti-vector (ChAd3) antibodies interfering with the boost response.

4.4.6. Blinding

This was a double-blind clinical trial. Subjects, investigators, study personnel performing any study-related assessments following study vaccine administration, and laboratory personnel performing antibody assays were blinded to treatment arm assignment (i.e., type of booster). Laboratory personnel performing experimental assays including antibody assays were also masked to subject ID and study visit. The randomization scheme was generated by the SDCC and provided to unblinded study personnel (i.e., research pharmacists performing study vaccination preparations and unblinded study vaccine administrators) at the participating VTEU site.

To preserve blinding and mask the color of study product in the syringe, the unblinded site research pharmacist was to place a blinding tape or overlay on the syringe to mask its content. The vaccine was then be sent to an unblinded study vaccine administrator for administration to the subject.

The unblinded study vaccine administrator was a study personnel member credentialed to administer vaccines and might also have participated in dose preparation, but was not involved in study-related assessments or had subject contact for data collection following study vaccine administration.

The Safety Monitoring Committee (SMC) received data in aggregated form across study arms. The SMC was to review safety data by study arm in the closed session only. Refer to the protocol-specific Manual of Procedures (MOP) for unblinding procedures.

4.4.7. Prior and Concomitant Therapy

Administration of any medications, therapies, or vaccines were recorded on the appropriate data collection form. Concomitant medications included all current medications and medications taken within 60 days prior to signing the informed consent form through approximately 28 days after the second study vaccination or early termination (if prior to 28 days after the second study vaccination), whichever occurred first. Assessment of study eligibility included a review of all permitted and prohibited medications per the Subject Inclusion and Exclusion Criteria (see Section 4.3). Medications reported in the electronic case report form (eCRF) were limited to those taken within 30 days prior to study vaccination through approximately 28 days after the second study vaccination. Prescription and over-the-counter drugs were included as well as herbals, vitamins, and supplements. In addition, receipt of non-study vaccines was solicited through approximately 28 days after the second study vaccination and reported in the eCRF.

Use of new medication prompted evaluation for the occurrence of an AE or worsening of a pre-existing medical condition. Medications that might interfere with the evaluation of the investigational product(s) were not to be used from time of study vaccination through 28 days post the second vaccination unless clinically indicated as part of the subject's health care. Medications in this category included the prohibited medications per the Subject Exclusion Criteria (see Section 4.3). In addition, the site principal investigator or appropriate sub-investigator may have identified other medications that should have not been used due to a risk to subject safety or assessment of reactogenicity and immunogenicity. Use of medications as prophylaxis prior to study vaccination was prohibited. There are no known drug-vaccine interactions with the study vaccine and subjects were not being asked to discontinue current medications not listed in the exclusion criteria. In the event medical conditions dictated use of medications, subjects were encouraged to obtain adequate care, comply with the course of therapy as prescribed by their physician and inform the site as soon as practicable. Details of all medications taken during the medication reporting period for this study (date, indication, brand or generic name) were recorded.

4.4.8. Treatment Compliance

Study products were administered to subjects via intramuscular injection by study personnel according to randomized subject treatment assignment. No dose modifications were planned. If a subject's second vaccination was deferred, attempts were made to reschedule the vaccination to occur within the acceptable protocol-specified window for that visit.

4.5. Immunogenicity and Safety Variables

See Table 2 and Section 8 in the protocol for details on study procedures/evaluations.

4.5.1. Safety Variables

Safety will be assessed by the occurrence of:

1. Serious adverse events and MAAEs occurring from the time of study vaccination through approximately 6 months after the first study vaccination.
2. Solicited Adverse Events – reactogenicity events occurring from the time of study vaccination through 7 days after each study vaccination:
   a) Local AEs including pain, tenderness, erythema (redness), induration (hardness/swelling), ecchymosis (bruising) and pruritis (itching).
   b) Systemic AEs including fever, feverishness (chills, shivering, sweating), fatigue (tiredness), malaise (general unwell feeling), myalgia (body aches/muscular pain), nausea, loss of appetite and headache.
3. Clinical safety laboratory adverse events occurring from the time of study vaccination through approximately 28 days after the second vaccination. Parameters to be evaluated include WBC, Hgb, platelet count, ANC, sodium, potassium, Creatinine, BUN (BUN will be obtained only if creatinine is above the normal range), and ALT.
4. Unsolicited Adverse Events – study vaccine-related non-serious adverse events occurring from the time of study vaccination through approximately 28 days after the second study vaccination.

4.5.2. Immunogenicity Variables

The secondary immunogenicity endpoints will assess antibodies against Ebola virus (EBOV) glycoproteins (GP) using an enzyme-linked immunosorbent assay (anti-EBOV GP ELISA). Venous blood samples for serum used for this immunogenicity assay will be tested at pre-vaccination (Day 1) and post-vaccination on Days 8, 15, 22, 29, and 36 for all study arms. Analysis variables include geometric mean titer (GMTs), geometric mean fold rise (GMFR), and seroconversion.

The exploratory immunogenicity endpoints assess neutralizing antibodies using an anti-EBOV GP pseudovirion neutralization assay (anti-EBOV GP NEUT) at pre-vaccination (Day 1) and post-vaccination on Days 8, 15, 22, 29, and 36 for all study arms. The anti-EBOV GP NEUT endpoint will be represented as the highest titer achieving ≥50% neutralization (anti-EBOV GP NEUT50) as well as the highest titer achieving ≥40% neutralization (anti-EBOV GP NEUT40). Summary statistics for these anti-EBOV GP NEUT endpoints include geometric mean titer (GMTs) and geometric mean fold rise (GMFR).

4.5.3. Other Variables

Please refer to the addendum of this SAP for additional exploratory endpoint variables.

5. SAMPLE SIZE CONSIDERATIONS

This Phase I study is not designed to test a formal null hypothesis. The sample size for this study was selected to obtain preliminary estimates of vaccine safety and immunogenicity. The clinical trial includes an exploratory systems biology component to identify changes in gene expression, and cytokines that are associated with adaptive humoral and/or cellular immune responses. These systems biology results are expected to generate hypotheses to be verified in future studies.

6. GENERAL STATISTICAL CONSIDERATIONS

6.1. General Principles

Continuous variables will be summarized using descriptive statistics: n (non-missing sample size), mean, standard deviation, median, interquartile range, min, and max) unless otherwise specified. The frequency and percentages (based on the analysis population size) of observed levels will be reported for all categorical measures. In general, all data will be listed, sorted by study arm (1-3), subject, and when appropriate, by study visit number within subject. Unless otherwise specified, study arm labels shown in tables and figures will include the total population size relevant to the particular analysis. As subjects in all study arms will receive the same study product (ChAd3-EBO-Z) for the first vaccination (Table 1), results prior to the second vaccination (up to and including Day 8) will be presented jointly as "Study Arms 1, 2, and 3 (ChAd3)". Post-second vaccination results will be presented separately for each of the three study arms.

6.2. Timing of Analyses

The final CSR will be completed after the last subject's last visit is completed, and the final clinical database including all long-term safety follow-up data is cleaned, monitored and locked. The primary CSR will include results for all primary and secondary endpoint data as well as exploratory EBOV GP pseudovirion neutralization assay data. Additional results for exploratory endpoint data will be included as one or more addenda to the primary CSR.

6.3. Analysis Populations

6.3.1. The Safety Analysis Population

The Safety Analysis population includes all subjects who received at least one study vaccination.

6.3.2. The Intent-to-Treat (ITT) Analysis Population

The ITT population includes all subjects who received at least one study vaccination and contributed both pre- and at least one post-study vaccination blood samples for immunogenicity testing for which valid results were reported. Subjects will be analyzed according to the study group to which they were randomized.

6.3.3. The Per Protocol (PP) Analysis Population

The per protocol (PP) population includes all subjects in the ITT subset with the following exclusions:

- Data from all available visits for subjects found to be ineligible at baseline.
- Data from all visits subsequent to major protocol deviations, such as:
  - Second study vaccination not received,
  - Receipt of non-study licensed live vaccine within 30 days prior to or after each study vaccination,
  - Receipt of non-study licensed inactivated vaccine within 14 days prior to or after each study vaccination,
  - Receipt of oral or parenteral (including intraarticular) corticosteroids of any dose within 30 days prior to study vaccination.
  - Receipt of high-dose inhaled corticosteroids within 30 days prior to study vaccination.

- Receipt of chronic (defined as more than 14 days) immunosuppressants or other immune modifying drugs within 6 months of receipt of study vaccine.

- Data from any visit that occurs outside the pre-defined protocol window.
- In the case of mis-randomization, subjects will be analyzed according to the study product actually received.

6.4. Covariates and Subgroups

There is no *a priori* plan to adjust the analyses of safety and immunogenicity for covariates or carry out subgroup analyses.

6.5. Missing Data

Unless otherwise specified, missing data will be maintained as missing for all analyses and no imputation will be performed for missing values.

6.6. Interim Analyses and Data Monitoring

6.6.1. Interim Safety Review

Interim safety reviews were not conducted.

6.6.2. Interim Immunogenicity Review

An interim immunogenicity review was not planned.

6.7. Multicenter Studies

This is a single center study.

6.8. Multiple Comparisons/Multiplicity

The study was not designed to test any specific null hypothesis. No multiple testing adjustments will be carried out for immunogenicity endpoints. For high-dimensional exploratory -omics endpoints, the false discovery rate (FDR) will be used to control the number of false discoveries [29]. See SAP addendum for further details.

7. STUDY SUBJECTS

7.1. Disposition of Subjects

A flowchart presenting the disposition of study subjects, adapted from the CONSORT statement will be included (Figure 1). The flowchart includes the number of subjects eligible, enrolled and randomized, lost to follow-up, and analyzed, by study arm. The disposition of subjects in the study will be tabulated by treatment group as shown in Table 14. The number of enrolled subjects and per-visit exclusions will be summarized by analysis population (Table 12and Table 13). Screened subjects who were ineligible for enrollment in the study will be presented by inclusion and exclusion criteria (Table 11). A listing of subjects who discontinued or terminated early from the study will be included in Listing 2. Subjects and per-visit exclusions will be provided in Listing 5.

7.2. Protocol Deviations

A summary of protocol deviations will be presented by the deviation category, type, and treatment group in Table 3. This table will provide both the number of subjects and the number of deviations for each category and study arm. All subject-specific protocol deviations and non-subject-specific protocol deviations will be provided in Listing 3 and Listing 4, respectively.

8. IMMUNOLOGY EVALUATION

8.1. Antibody Analyses

The primary immunogenicity antibody endpoint analysis will be based on anti-EBOV GP ELISA titer. Exploratory endpoint analysis will assess anti-EBOV neutralizing antibody titers (anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40). All antibody analyses will be conducted for both the ITT and PP analysis populations. Subject level antibody data for anti-EBOV GP ELISA and anti-EBOV GP NEUT will be presented as shown in Listing 9.

For each study arm and analysis population, titers for each study visit will be summarized by tabulating the number of observations, geometric mean and 95% CI of the geometric mean (based on Student's t-distribution) (Table 18). Per-visit geometric mean titers and 95% CIs will be visualized across study visits by study arm using time trend plots as presented in Figure 2. Similarly, the geometric mean fold rise relative to pre-vaccination (Day 1) will be summarized (Table 19and Figure 2). For each study arm and analysis population, the number of subjects that achieved seroconversion for each post-first vaccination study visit will be summarized by tabulating numbers, percentages, and associated 95% CIs (based on Clopper-Pearson) (Table 20). Per-visit seroconversion percentages and 95% CIs will be visualized across post-first vaccination study visits by study arm using time trend plots as presented in Figure 3. For the exploratory assessment of neutralization titers (anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40), GMTs and GMFRs will be tabulated and visualized as presented in Table 18, Table 19, and Figure 2.

Significant differences in anti-EBOV GP ELISA and anti-EBOV neutralizing antibody titers (anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40) between study groups for each post-second vaccination time points will be evaluated using a two-sided Welch's t-test using an individual alpha of 0.05 (Table 21). Differences in anti-EBOV GP ELISA-based seroconversion at post-second vaccination time points will be assessed using a two-sided Fisher’s exact test using an individual alpha of 0.05 (Table 22).

9. SAFETY EVALUATION

All safety analyses will be presented using the safety population. Any medical condition that is present at the time that the subject is screened will be considered baseline and not reported as an AE, unless it worsens in severity or increases in frequency during the study. When calculating the incidence of solicited and unsolicited adverse events (i.e., on a per subject basis), each subject will be counted once and any repetitions of solicited and unsolicited adverse events within a subject will be ignored; the denominator will be the number of subjects in the safety analysis population unless results are shown by dose in which case the denominator will be the number of subjects that received the respective dose.

9.1. Demographic and Other Baseline Characteristics

Summaries of sex, ethnicity, and race will be presented by treatment group and overall (Table 15). Ethnicity is categorized as Hispanic or Latino, or not Hispanic and not Latino. In accordance with NIH reporting policy, subjects may self-designate as belonging to more than one race or may refuse to identify a race, the latter reflected in the CRF as "No" to each racial option. Age and body mass index (BMI) will be summarized as a continuous variable as outlined in Table 16. All current and pre-existing medical conditions will be presented by MedDRA SOC and study arm (Table 17). Individual subject listings will be presented for all demographics (Listing 6); pre-existing and concurrent medical conditions (Listing 7); vital signs and oral temperature (Listing 13) and concomitant medications (Listing 15).

9.2. Measurements of Treatment Compliance

All subjects are to receive two doses of vaccine administered in the clinic. The first vaccination is given on Day 1, and the second (booster) vaccination is to be given on Day 8. Table 14 summarizes the number of subjects who complied with the treatment administration schedule by study arm. Individual data listings of treatment compliance will be included in Listing 3 and Listing 8.

9.3. Adverse Events

9.3.1. Solicited Events and Symptoms

Solicited adverse events collected 30 minutes post-vaccination (in-clinic assessment) and then daily for 7 days after each vaccination (through Day 8) will be graded on a scale of 0 (absent), 1 (mild), 2 (moderate) and 3 (severe). Local reactogenicity grading are provided in Table 4 and Table 5 and include:

- Pain – experienced without touching the injection site (spontaneous discomfort)
- Tenderness – hurts only when injection site is touched, or the arm is moved
- Erythema (Redness)
- Induration (Hardness/Swelling)
- Ecchymosis (Bruising)
- Pruritus (Itching)

The systemic reactogenicity grading is provided in Table 6 and Table 7 and includes:

- Feverishness (chills/shivering/sweating)
- Malaise (General Unwell Feeling)

- Fatigue (Tiredness)
- Myalgia (Body Aches/Muscular Pain)
- Headache
- Nausea
- Loss of Appetite
- Elevated Oral Temperature

Pre-second dose, safety events will include all safety assessments through Day 8 post-dose 1. If the second dose occurred on Day 8, Day 8 pre-second dose safety events will include memory aid assessments and in-clinic~~al~~ assessments that occurred prior to dose 2.

Safety data will be summarized for the Safety Analysis Population. Pre-second vaccination, Study Groups 1, 2, 3 will be analyzed jointly as one study group as all three groups received the same vaccine at Day 1. Table 23 will provide an overview of safety events by study arm and overall. Solicited AEs will be summarized using the maximum severity over all days after each vaccination overall by vaccination and symptom (subjects with mild or higher severity grading, Table 24) and by severity (none, mild, moderate, severe) and symptom (Table 25). In both cases, the resulting number, percentage (observed rate) of subjects and associated exact (Clopper-Pearson) 95% CIs by symptom, any systemic symptom, any local symptom, and any symptom (systematic or local symptom) will be provided. In addition, solicited AEs will be tabulated by severity for each day after each study vaccination (Days 1 through Day 8) following each vaccination (Table 26 and Figure 4). Subject-level solicited events will be provided as shown in Listing 10 and Listing 11.

9.3.2. Unsolicited Adverse Events

Vaccine-related unsolicited AEs from the first study vaccination through 28 days post second vaccination will be coded by Medical Dictionary for Regulatory Activities (MedDRA®) for preferred term and system organ class (SOC) (Table 27). These AEs will be summarized as number and percentage of subjects reporting at least one event in each MedDRA® preferred term and SOC, cross tabulated by severity grade (none, mild, moderate, severe). Corresponding results for all unsolicited AEs will be presented by study arm as shown in Table 28. A categorization by severity and vaccine-relatedness by study arm will be provided as provided in Table 29. Subject-level unsolicited adverse events will be provided as shown in Listing 10.

9.4. Deaths, Serious Adverse Events and other Significant Adverse Events

The number of SAEs and vaccine-related Medically Attended Adverse Events (MAAEs) through 6 months post first vaccination will be reported by detailed listings showing the event description, preferred term and SOC, relevant dates (study vaccinations and AEs), severity, vaccine-relatedness, and outcome for each event (Table 30 and Table 31).Non-serious, unsolicited, moderate or severe adverse events will be listed as shown in Table 32.

Unsolicited events will be visualized according to Figure 5, Figure 6, Figure 7, Figure 8, Figure 9, Figure 10, Figure 11, and Figure 12 and details will be provided according to Listing 12.

9.5. Pregnancies

Efforts will be made to follow all pregnancies reported during the course of the study to pregnancy outcome pending the subject's permission. An individual data listing of pregnancy reports detected will be provided in Listing 18, Listing 19, Listing 20, Listing 21, and Listing 22.

9.6. Clinical Laboratory Evaluations

Clinical safety laboratory adverse event gradings are presented in Table 9 and Table 10. Safety laboratory parameters and toxicity grade criteria are summarized in Table 9 and Table 10. Unscheduled or repeated follow-up tests for medical or safety reasons will be listed but excluded from per-visit tabular and graphical summaries. These results will be included when summarizing maximum response from baseline.

For baseline laboratory results that are abnormal according to the local laboratory reference range (see protocol Appendix C) and fall within Grade 1 toxicity table range, these will not be considered laboratory adverse event (AE) and will thus not be graded. However, if baseline clinical labs fall within Grade 1 range, then a laboratory AE is reported only if the value changes such that it falls into Grade 2 or higher when subsequent safety laboratory testing is done.

Listings of abnormal laboratory results will be provided as shown in Table 33 and Table 34. For each laboratory parameter, the following summaries will be generated for each treatment group:

- Laboratory AEs from the time of first study vaccination through approximately 28 days after the second vaccination will be summarized by severity grade (none, mild, moderate, severe) for each laboratory visit using percentages and exact two-sided 95% CIs (Table 35).
- A tabular summary of descriptive statistics including the mean, standard deviation, median, minimum, and maximum for per-visit results (Table 36).
- A tabular summary of descriptive statistics including the mean, standard deviation, median, minimum, and maximum for fold change compared to pre-vaccination (Table 37).
- A graphical summary of change from baseline (Figure 13).

Listing 13 and Listing 14 will provide a complete listing of individual clinical laboratory results.

9.7. Vital Signs and Physical Evaluations

Vital sign severity grading criteria can be found in Table 8. Vital sign measurements included oral temperature, systolic and diastolic blood pressure and heart rate assessed at Screening, Days 1 and 8. Vital signs will be tabulated by maximum severity grade (none, mild, moderate, severe) and study day, for each treatment group separately, overall and by vital sign variable (Table 38). Individual data listings of vital signs and physical exam findings will be provided in Listing 15 and Listing 16, respectively.

9.8. Concomitant Medications

A medication will be considered a concomitant medication if it is taken at any time post vaccination. Concomitant medications will be coded to the Anatomical Therapeutic Classification using the WHO Drug Dictionary. The use of prior and concomitant medications taken during the study is recorded on the CRFs. The use of concomitant medications during the study will be summarized by ATC1, ATC2 code and study arm for the safety population (Table 39). A by-subject listing of prior and concomitant medication use will be presented in Listing 17.

10. OTHER ANALYSES

See addendum to this SAP for additional exploratory endpoint analyses.

11. REPORTING CONVENTIONS

The mean, standard deviation, and any other statistics other than quantiles, will be reported to one decimal place greater than the original data. Quantiles, such as median, or minimum and maximum will use the same number of decimal places as the original data.

12. SUMMARY OF CHANGES IN THE CONDUCT OF THE STUDY OR PLANNED ANALYSES

The exploratory anti-EBOV GP neutralization endpoint was defined in two ways: anti-EBOV GP NEUT50 (highest titer with ≥ 50% neutralization) and anti-EBOV GP NEUT40 (highest titer with ≥ 40% neutralization). The ≥ 50% neutralization is generally considered a reasonable cutoff for assessing meaningful neutralization responses. To avoid missing real neutralization responses that are low due to the lack of any affinity maturation in the compressed 7-day prime/boost schedule, ≥ 40% neutralization was added as an additional exploratory outcome.

13. REFERENCES

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9.1 Overall Study Design and Plan Description

Table 1: Study Design

Subjects	First Study Vaccination (Day 1)	Second Study Vaccination (Day 8)	Study Arm Label
20	ChAd3-EBO-Z	Placebo	Study Arm 1 (ChAd3+Placebo)
20	ChAd3-EBO-Z	ChAd3-EBO-Z	Study Arm 2 (ChAd3+ChAd3)
20	ChAd3-EBO-Z	MVA-BN®-FILO	Study Arm 3 (ChAd3+MVA-BN)
Total N=60 subjects			

9.5.1 Immunogenicity and Safety Measurements Assessed and Flow Chart

Table 2: Schedule of Study Procedures

Study Visit (V)	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	U/S[2]	ET[2]
Study Day from Vaccine 1	Day < -29 to -1	Day 1 Vaccine 1	Day 2	Day 3	Day 4	Day 6	Day 8 +2	Day 9	Day 15	Day 22	Day 29	Day 36	Day 76 +/- 7	Day 106 +/-7	Day 182 +/- 14	-	-
Study Day from Vaccine 2							Day 1 Vaccine 2	Day 2	Day 8 +1	Day 15 +2, - 1	Day 22 +/- 1	Day 29 +/- 2				-	-
Visit Type	Screen	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Call	Call	Clinic	Clinic	Clinic
Obtain Informed Consent[∞]	X[†¬]	X[¬]															
Collect Demographic Information	X																
Review Eligibility Criteria	X	X[†¬1]					X[†¬]										
Medical History[@]	X	X[†¬1]	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Concomitant Medications	X[√]	X[†¬]	X	X	X	X	X	X	X	X	X	X				X	X
Vital Signs (oral temp, pulse, BP)[%$]	X	X[†]					X[†]									X	X
Height & Weight	X																
ECG	X	[X]	[X]	[X]	[X]	[X]	[X]†	[X]	[X]	[X]	[X]	[X]			[X]	[X]	[X]
Physical Examination	X	{X}[†]	{X}	{X}	{X}	{X}	{X}[†]	{X}	{X}	{X}	{X}	{X}			{X}	{X}	{X}
Urine or Serum Pregnancy Test^	X	X[†]					X[†]										
Urine Dipstick, Opioid testing	X																
Enrollment/Randomization		X															
Pre-administration reactogenicity assessments		X[†]					X[†]										
Study Vaccination		X[3]					X[4]										
30-minute evaluation post vax		X					X										
Distribute Memory Aid/Materials		X					X										
Review Memory Aid			X	X	X	X	X	X	X							X	X
Assessment of Adverse Events		X	X	X	X	X	X	X	X	X	X	X				X	X
Assessment of SAEs/MAAEs		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Table 2: Schedule of Study Procedures (Continued)

Study Visit (V)	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	U/S[2]	ET[2]
Study Day from Vaccine 1	Day < -29 to -1	Day 1 Vaccine 1	Day 2	Day 3	Day 4	Day 6	Day 8 +2	Day 9	Day 15	Day 22	Day 29	Day 36	Day 76 +/- 7	Day 106 +/-7	Day 182 +/- 14	-	-
Study Day from Vaccine 2							Day 1 Vaccine 2	Day 2	Day 8 +1	Day 15 +2, - 1	Day 22 +/- 1	Day 29 +/- 2				-	-
Visit Type	Screen	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Clinic	Call	Call	Clinic	Clinic	Clinic
Laboratory Assessments[5]																	
Screening Labs~	14.2[= & >]																
HLA typing for Class 1 (A, B, C locus)		6[†]															
Clinical Safety Evaluations*		6.5[†]					6.5[†]		6.5		6.5	6.5				6.5	6.5
Humoral response – ELISA		10[†]					10[†]		10	10	10	10					10
Humoral response - ADCC																	
Humoral Response, EBOV GP Neut Antibody																	
EBOV GP T cell responses		24[†]					24[†]		24	24		24					32
ChAd3 vector T cell responses																	
Plasmablasts		24[†]					24[†]		24								
Cd8 Tetramer Staining		8[†]					8[†]		8								8
Activation Marker Analysis																	
Exploratory cytokine/chemokine analysis (Op 6)		5[†]	5	5	5	5	5[†]	5	5								
Transcriptomics/Gene Expression PBMCs 8)		16[†]	16	16	16	16	16[†]	16	16								
Yeast Display												16					
Future Use Collection		8[†]					8[†]		8	8		8			42		

∞Prior to study procedures.
† Prior to study vaccination.
¬ Review/confirm information or activity in subjects previously consented and screened.
[1] Review results of clinical screening laboratory evaluations.

Table 2: Schedule of Study Procedures (Continued)

@ Complete medical history will be obtained by interview of subjects at the screening visit and will be updated on Day 1 prior to the first study vaccination and interim medical history will be obtained by interview of subjects at follow-up visits after the first study vaccination.
% Subjects must not eat or drink anything hot or cold, or smoke within 10 minutes prior to taking oral temperature.
$ Vital signs assessed on Day 1 prior to the first study vaccination will be considered as baseline.
√ All current medications and medications taken within 60 days prior to signing the informed consent form.
^ Will be performed on all women of childbearing potential at screening (serum) and within 24 hours prior to study vaccination (urine) and results must be negative and known prior to each study vaccination.
~ Screening laboratories include: WBC, Hgb, HgbA1C, platelets, ANC, sodium, potassium, BUN (only assessed if creatinine is above the normal range) , creatinine, albumin, total protein, Alanine aminotransferase (ALT), hepatitis B surface antigen, hepatitis C antibody, HIV types 1 and 2, Prothrombin time (PT), partial thromboplastin time (PTT).
= All clinical screening laboratory evaluations are to be performed at screening and the values are to be reviewed prior to the first study vaccination on Day 1; no additional blood draws for this are required on Day 1.
& Retesting of values that lead to exclusion is allowed once using an unscheduled visit during the screening period, provided there is an alternative explanation for the out of range value.
> If the initial laboratory screening occurred more than 28 days before baseline (Day 1) but the subject was unable to be vaccinated within the 28-day window (e.g., due to meeting Exclusion Criteria or for other reasons), the subject must have laboratories repeated.
{ } Targeted physical examination if indicated based on review of interim medical history.
[ ] ECG will be completed if clinically indicated based on signs/symptoms per the Investigator's judgement
* Safety laboratories include: WBC, Hgb, platelets, ANC, sodium, potassium, BUN (only assessed if creatinine is above the normal range), creatinine, Alanine aminotransferase (ALT).
2 Refer to protocol for specific procedures and time points for ET or U/S visit.
3 Single dose of 2 x 10^{11} vp ChAd3-EBO-Z.
4 Single dose of Booster Vaccination (Group 1: placebo, Group 2: 2 x 10^{11} vp ChAd3-EBO-Z., Group 3: 1 x 10^{8} IU MVA-BN®-Filo).
5 Volume of blood listed is in ml

10.2 Protocol Deviations

Table 3: Distribution of Protocol Deviations by Category, Type, and Treatment Group

Category	Deviation Type	Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)		All Subjects (N=X)	
		# of Subj.	# of Dev.	# of Subj.	# of Dev.	# of Subj.	# of Dev.	# of Subj.	# of Dev.
Eligibility/enrollment	Any type	x	x	x	x	x	x	x	x
	Did not meet inclusion criterion	x	x	x	x	x	x	x	x
	Met exclusion criterion	x	x	x	x	x	x	x	x
	ICF not signed prior to study procedures	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x
Treatment administration schedule	Any type	x	x	x	x	x	x	x	x
	Out of window visit	x	x	x	x	x	x	x	x
	Missed visit/visit not conducted	x	x	x	x	x	x	x	x
	Missed treatment administration	x	x	x	x	x	x	x	x
	Delayed treatment administration	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x
Follow-up visit schedule	Any type	x	x	x	x	x	x	x	x
	Out of window visit	x	x	x	x	x	x	x	x
	Missed visit/visit not conducted	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x
Protocol procedure/assessment	Any type	x	x	x	x	x	x	x	x
	Incorrect version of ICF signed	x	x	x	x	x	x	x	x
	Blood not collected	x	x	x	x	x	x	x	x
	Urine not collected	x	x	x	x	x	x	x	x
	Other specimen not collected	x	x	x	x	x	x	x	x
	Too few aliquots obtained	x	x	x	x	x	x	x	x

Table 3: Distribution of Protocol Deviations by Category, Type, and Treatment Group (Continued)

Category	Deviation Type	Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)		All Subjects (N=X)	
		# of Subj.	# of Dev.	# of Subj.	# of Dev.	# of Subj.	# of Dev.	# of Subj.	# of Dev.
	Specimen result not obtained	x	x	x	x	x	x	x	x
	Required procedure not conducted								
	Required procedure done incorrectly	x	x	x	x	x	x	x	x
	Study product temperature excursion	x	x	x	x	x	x	x	x
	Specimen temperature excursion	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x
Treatment administration	Any type	x	x	x	x	x	x	x	x
	Required procedure done incorrectly	x	x	x	x	x	x	x	x
	Study product temperature excursion	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x
Blinding policy/procedure	Any type	x	x	x	x	x	x	x	x
	Treatment unblinded	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x

N=Total number of enrolled subjects.

12.2.2 Displays of Adverse Events

Table 4: Local (Injection Site) Reactogenicity Grading

Local (Injection Site) Reaction	Mild (Grade 1)	Moderate (Grade 2)	Severe (Grade 3)
Pain – experienced without touching the injection site (spontaneous discomfort)	Subject is aware of pain, but it does not interfere with daily activity, **and** no pain medication is taken	Subject is aware of pain; there is interference with daily activity **or** it requires repeated use of a non-narcotic pain reliever for >24 hours	Subject is aware of pain, **and** it prevents daily activity or requires any use of a prescription medication.
Tenderness – hurts only when injection site is touched or the arm is moved	The area immediately surrounding the injection site hurts only when touched or with arm motion, **and** it does **not** interfere with daily activity	The area immediately surrounding the injection site hurts when touched or with arm motion, **and** it interferes with daily activity	The area immediately surrounding the injection site hurts when touched or with arm motion, **and** it prevents daily activity
Erythema (Redness)	Does not interfere with daily activity	Interferes with daily activity	Prevents daily activity
Induration (Hardness/Swelling)	Does not interfere with daily activity	Interferes with daily activity	Prevents daily activity
Ecchymosis (Bruising)	Does not interfere with daily activity	Interferes with daily activity	Prevents daily activity
Pruritus (Itching)	Does not interfere with daily activity	Interferes with daily activity	Prevents daily activity

Table 5: Local (Injection Site) Reactogenicity Measurements

Local (Injection Site) Reaction	Small	Medium	Large
Ecchymosis (Bruising)	<20 mm	20 mm – 50 mm	>50 mm
Erythema (Redness)	<20 mm	20 mm – 50 mm	>50 mm
Induration (Hardness)/Swelling	<20 mm	20 mm – 50 mm	>50 mm

Table 6: Subjective Systemic Reactogenicity Grading

Systemic (Subjective)	Mild (Grade 1)	Moderate (Grade 2)	Severe (Grade 3)
Feverishness (chills/shivering/sweating)	Noticeable but does not interfere with daily activity	Interferes with daily activity	Significant interference, prevents daily activity
Malaise (General Unwell Feeling)	Noticeable but does not interfere with daily activity	Interferes with daily activity	Significant interference, prevents daily activity
Fatigue (Tiredness)	Noticeable but does not interfere with daily activity	Interferes with daily activity	Significant interference, prevents daily activity
Myalgia (Body Aches/Muscular Pain)*	Noticeable but does not interfere with daily activity	Interferes with daily activity	Significant interference, prevents daily activity
Headache	Noticeable but does not interfere with daily activity	Any use of pain reliever or interferes with daily activity	Significant interference, prevents daily activity, or requires any use of a prescription medication
Nausea	Noticeable but does not interfere with daily activity	Interferes with daily activity	Significant interference, prevents daily activity
Loss of Appetite	Noticeable but does not interfere with daily activity	Interferes with daily activity	Significant interference, prevents daily activity

* Not at injection site.

Table 7: Quantitative Systemic Reactogenicity Grading

Systemic (Quantitative)	Mild (Grade 1)	Moderate (Grade 2)	Severe (Grade 3)
Fever* - oral†	37.8°C – 38.4°C 100.00°F – 101.1°F	38.5°C – 38.9°C 101.2°F – 102.0°F	>38.9°C >102.0°F

Oral temperature assessed on Day 1 prior to study vaccination will be considered as baseline.
* A fever can be considered not related to the study product if an alternative etiology can be documented.
† Subjects must not eat or drink anything hot or cold, or smoke within 10 minutes prior to taking oral temperature.

Table 8: Blood Pressure and Pulse Grading

Physiologic Parameter	Mild (Grade 1)	Moderate (Grade 2)	Severe (Grade 3)
Bradycardia - beats per minute	45-46	40 – 44	<40
Tachycardia - beats per minute	106 – 130	131 – 155	>155
Hypotension (systolic) mmHg	80 – 84	75 – 79	<75
Hypotension (diastolic) mmHg	50 – 54	45 – 49	<45
Hypertension (systolic) mmHg	151 – 155	156 – 160	>160
Hypertension (diastolic) mmHg	96 – 100	101 – 105	>105

[#] Pulse and blood pressure assessed on Day 1 prior to study vaccination will be considered as baseline.

12.4.1 Individual Laboratory Measurements and Abnormal Laboratory Values

Table 9: Clinical Safety Laboratory Adverse Event Grading (Hematology)

Hematology	Clinical Laboratory Reference Range	Mild (Grade 1)	Moderate (Grade 2)	Severe (Grade 3)
WBC K/mcL (Decrease, 18 to <21 years)	4.5 – 13.0	2.5 – 4.4	1.5 – 2.4	<1.5
WBC K/mcL (Decrease, ≥ 21 years)	4.5 – 11.0	2.5 – 4.4	1.5 – 2.4	<1.5
WBC K/mcL (Increase 18 to <21 years)	4.5 – 13.0	13.1 – 15.0	15.1 – 20.0	>20.0
WBC K/mcL (Increase ≥ 21 years)	4.5 – 11.0	11.1 – 15.0	15.1 – 20.0	>20.0
Hgb g/dL (Decrease) (Female)	11.7 – 15.7	10.1 – 11.6	8.5 – 10	<8.5
Hgb g/dL (Decrease) (Male)	13.3 – 17.7	11.0 – 13.2	9.5 – 10.9	<9.5
Platelet count K/mcL (Decrease)	135 - 466	125 – 134	100 – 124	<100
Platelet count K/mcL (Increase)	135 - 466	467 - 517	518 – 750	>750
Absolute Neutrophil Count, K/mcL* (18 to < 21 years)	1.80 – 8.00	1.5-<1.8	1.0-<1.5	<1.0
Absolute Neutrophil Count, K/mcL* (≥ 21 years)	1.80 – 7.70	1.5-<1.8	1.0-<1.5	<1.0
Absolute Neutrophil Count, K/mcL - Benign Ethnic Neutropenia*	≥ 0.8	0.6 – 0.7	0.4 -- 0.5	< 0.4

* ANC for subjects that are of African American and Middle Eastern descent may have values as low as 0.8 x K/mcL. Subjects of this descent must have an ANC ≥ 0.8 K/mcL to be eligible to participate in the study if all other study criteria are met. Laboratory metrics assessed on Day 1 prior to first study vaccination will be considered as baseline.

Note: For baseline laboratory results that are abnormal according to the local laboratory reference range (see protocol Appendix C) and fall within Grade 1 toxicity table range, these will not be considered laboratory adverse event (AE) and will thus not be graded. However, if baseline clinical labs fall within Grade 1 range, then a laboratory AE is reported only if the value changes such that it falls into Grade 2 or higher when subsequent safety laboratory testing is done.

Table 10: Clinical Safety Laboratory Adverse Event Grading (Chemistry)

Chemistry	Clinical Laboratory Reference Range	Mild (Grade 1)	Moderate (Grade 2)	Severe (Grade 3)
ALT unit/L (Increase)	≤ 49	50 - 123	124 - 245	> 245
Creatinine mg/dL (Increase - Female)	0.50 - 0.80	0.81 - 1.70	1.71 - 2.00	>2.00
Creatinine mg/dL (Increase - Male)	0.60 - 1.10	1.11 - 1.70	1.71 - 2.00	>2.00
Sodium, low, mmol/L	136 - 145	130 - 135	123 - 129	<123
Sodium, high, mmol/L	136 - 145	146 - 50	151 - 157	>157
Potassium, high, mmol/L	3.5 - 5.1	5.2 - 6.0	6.1 - 6.5	>6.5
Potassium, low, mmol/L	3.5 - 5.1	3.0 - 3.4	2.5 - 2.9	<2.5
Blood Urea Nitrogen (BUN) mg/dL	9.00 - 23.00	24 - 26	27 - 31	>31

Laboratory metrics assessed on Day 1 prior to first study vaccination will be considered as baseline.
Note, for baseline laboratory results that are abnormal according to the local laboratory reference range (see protocol Appendix C) and fall within Grade 1 toxicity table range, these will not be considered laboratory adverse event (AE) and will thus not be graded. However, if baseline clinical labs fall within Grade 1 range, then a laboratory AE is reported only if the value changes such that it falls into Grade 2 or higher when subsequent safety laboratory testing is done.

14.1 Description of Study Subjects

14.1.1 Disposition of Subjects

Table 11: Ineligibility Summary of Screen Failures

Inclusion/Exclusion Category	Inclusion/Exclusion Criterion	n[a]	%[b]
Inclusion and Exclusion	Number of subjects failing any eligibility criterion	x	x.x
Inclusion	Any inclusion criterion	x	x.x
	Provide written informed consent before initiation of any study procedures.	x	x.x
	Are able to understand and comply with planned study procedures and be available for all study visits/phone calls.	x	x.x
	Males or non-pregnant females ages 18-45, inclusive.	x	x.x
	Subject must have a body mass index (BMI) ≥18.5 and <35 kg/m2.	x	x.x
	Are in good health	x	x.x
	Oral temperature is less than 100.0 °F (37.8°C).	x	x.x
	Pulse is 47 to 105 beats per minute (bpm), inclusive.	x	x.x
	Systolic blood pressure (BP) is 85 to 150 mm Hg, inclusive.	x	x.x
	Diastolic blood pressure (BP) is 55 to 95 mm Hg, inclusive.	x	x.x
	Have acceptable screening laboratories within 28 days prior to enrollment (Refer to Appendix C for acceptable screening values.)	x	x.x
	Have normal screening laboratories for urine protein. Trace protein is acceptable.	x	x.x
	Drug screen for opiates is negative.	x	x.x
	Hemoglobin A1C (HgbA1C) <6.3% at screening.	x	x.x
	HIV 1/2 antibody negative.	x	x.x
	HCV antibody negative.	x	x.x
	HBsAg negative.	x	x.x
	Women of childbearing potential, must be using an effective method of contraception from 30 days prior to the first study vaccination until 90 days after the second study vaccination.	x	x.x
	Women of childbearing potential must have a negative serum pregnancy test at screening and a negative urine pregnancy test within 24 hours prior to each study vaccination.	x	x.x
	Women agree to not donate eggs (ova, oocytes) from the start of screening onwards until at least 90 days after the second vaccination.	x	x.x
	Agrees not to participate in another clinical trial during the study period.	x	x.x
	Agrees not to donate blood to a blood bank for 3 months after receiving the second study vaccine.	x	x.x

Table 11: Ineligibility Summary of Screen Failures (Continued)

Inclusion/Exclusion Category	Inclusion/Exclusion Criterion	n[a]	%[b]
Exclusion	Any exclusion criterion	x	x.x
	Women who are pregnant, planning to become pregnant or lactating.	x	x.x
	Known allergy or history of anaphylaxis, severe local or other serious adverse reactions to vaccines or vaccine products, or history of severe allergic reactions.	x	x.x
	Received an experimental agent within 3 months prior to Day 1, or expects to receive an experimental agent during the 6-month trial-reporting period.	x	x.x
	Received immunoglobulin or other blood product within 3 months before enrollment in this study.	x	x.x
	Received any licensed live vaccine within 30 days prior to the first study vaccination through 30 days after the second study vaccination.	x	x.x
	Received a licensed inactivated vaccine within 14 days prior to the first study vaccination through 14 days after the second study vaccination.	x	x.x
	Has been vaccinated with an Ebola vaccine.	x	x.x
	Has been diagnosed with Ebola disease, or exposed to Ebola virus including travel to West Africa in 2014-2016.	x	x.x
	Known or suspected receipt of ChAd3-EBO-Z or other ChAd3-vectored vaccine.	x	x.x
	Known or suspected receipt of an adenovirus serotype 5 (Ad5)-based vaccine.	x	x.x
	Known or suspected receipt of any licensed or investigational small pox (vaccinia)-based vaccine.	x	x.x
	Has a typical vaccinia scar.	x	x.x
	Confirmed Asplenia/Functional Asplenia.	x	x.x
	A history of bleeding or clotting disorders.	x	x.x
	History of chronic urticaria (recurrent hives).	x	x.x
	Individuals in whom the ability to observe possible local reactions at the eligible injection sites (left and right deltoid region) is, unacceptably obscured due to a physical condition or permanent body art.	x	x.x
	Thyroidectomy or thyroid disease requiring medication during the last 12 months.	x	x.x
	Have an acute illness, as determined by the site PI or appropriate sub-investigator, within 72 hours prior to study vaccination.	x	x.x
	Any confirmed or suspected immunosuppressive or immunodeficient condition or use of anticancer chemotherapy or radiation therapy (cytotoxic) within 3 years prior to study vaccination	x	x.x
	Administration of chronic (defined as more than 14 days) immunosuppressants or other immune modifying drugs within 6 months of receipt of study vaccine.	x	x.x
	Have taken oral or parenteral (including intraarticular) corticosteroids of any dose within 30 days prior to study vaccination	x	x.x
	Have taken high-dose dose inhaled corticosteroids within 30 days prior to study vaccination.	x	x.x

Table 11: Ineligibility Summary of Screen Failures (Continued)

Inclusion/Exclusion Category	Inclusion/Exclusion Criterion	n[a]	%[b]
	Have a history of convulsions or encephalomyelitis within 90 days prior to study vaccination.	x	x.x
	Current or past history of alcohol or drug abuse in the last 5 years.	x	x.x
	Subjects with autoimmune disorders, chronic inflammatory disorders or neurological disorders with a potential autoimmune correlation.	x	x.x
	Have any diagnosis, current or past, of schizophrenia, bipolar disease, or other psychiatric diagnosis that may interfere with subject compliance or safety evaluations.	x	x.x
	Have been hospitalized for psychiatric illness, history of suicide attempt, or confinement for danger to self or others within 10 years prior to study vaccination.	x	x.x
	Have received any antiviral within 3 days of study vaccination	x	x.x
	History of myocarditis, pericarditis, cardiomyopathy, transient ischemic attack or stroke, myocardial infarction, angina, coronary artery disease, congestive heart failure, clinically significant arrhythmia	x	x.x
	Electrocardiogram (ECG) with clinically significant findings.	x	x.x
	A diagnosis of Type I or II diabetes. (A history of isolated gestational diabetes is not an exclusion criterion).	x	x.x
	Current employee or staff paid entirely or partially by the contract for this trial, or staff who are supervised by the PI or Sub-Investigators.	x	x.x
	Any condition that would, in the opinion of the Site Investigator or appropriate sub-investigator, is a contraindication to study participation.	x	x.x
Eligible but not enrolled		x	x.x

[a] More than one criterion may be marked per subject.
[b] Denominator for percentages is the total number of screen failures.

Table 12: Analysis Populations by Treatment Group

Analysis Populations	Reason Subjects Excluded	Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)	
		n	%	n	%	n	%
Safety	Any Reason	x	x.x	x	x.x	x	x.x
	First study vaccination not received	x	x.x	x	x.x	x	x.x
ITT Population	Any Reason	x	x.x	x	x.x	x	x.x
	First study vaccination not received	x	x.x	x	x.x	x	x.x
	Did not contribute both pre- and at least one post-study vaccination blood samples for immunogenicity testing for which valid results were reported	x	x.x	x	x.x	x	x.x
Per-Protocol[*]	Any Reason	x	x.x	x	x.x	x	x.x
	First study vaccination not received	x	x.x	x	x.x	x	x.x
	Did not contribute both pre- and at least one post-study vaccination blood samples for immunogenicity testing for which valid results were reported	x	x.x	x	x.x	x	x.x
	Ineligible at Baseline	x	x.x	x	x.x	x	x.x
	Second study vaccination not received[#]	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed live vaccine within 30 days prior to or after each study vaccination[#]	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed inactivated vaccine within 14 days prior to or after each study vaccination[#]	x	x.x	x	x.x	x	x.x
	Receipt of oral or parenteral (including intraarticular) corticosteroids of any dose within 30 days prior to study vaccination[#]	x	x.x	x	x.x	x	x.x
	Receipt of high-dose inhaled corticosteroids within 30 days prior to study vaccination[#]	x	x.x	x	x.x	x	x.x
	Receipt of chronic (defined as more than 14 days) immunosuppressants or other immune modifying drugs within 6 months of receipt of study vaccine[#]	x	x.x	x	x.x	x	x.x
	Data from any visit that occurs outside the pre-defined protocol window. [#]	x	x.x	x	x.x	x	x.x

N=Total number of enrolled subjects.
*: In the case of mis-randomization, subjects will be analyzed according to the study product actually received.
#: These rules may result in subsets of visits to be excluded (visits subsequent to the respective deviation). These are only counted in this table if the visit exclusion resulted in excluding all visits and thus the complete subject. For individual per-visit exclusions, see Table 13.

Table 13: Per-Protocol Analysis Population Visit Exclusions by Study Arm and Study Visit Day

Study Visit Day	Reason Subjects Excluded	Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)		All Subjects (N=X)	
		n	%	n	%	n	%	n	%
Day 1	Any Reason	x	x.x	x	x.x	x	x.x	x	x.x
	First study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
Day 8 (Second Vaccination)	Any Reason	x	x.x	x	x.x	x	x.x	x	x.x
	First study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
	Data from all available visits for subjects found to be ineligible at baseline.	x	x.x	x	x.x	x	x.x	x	x.x
	Second study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed live vaccine within 30 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed inactivated vaccine within 14 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of oral or parenteral (including intraarticular) corticosteroids of any dose within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of high-dose inhaled corticosteroids within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of chronic (defined as more than 14 days) immunosuppressants or other immune modifying drugs within 6 months of receipt of study vaccine	x	x.x	x	x.x	x	x.x	x	x.x
	Data from any visit that occurs outside the pre-defined protocol window.	x	x.x	x	x.x	x	x.x	x	x.x
Day 8 Post-Second Vaccination	Any Reason	x	x.x	x	x.x	x	x.x	x	x.x
	First study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
	Data from all available visits for subjects found to be ineligible at baseline.	x	x.x	x	x.x	x	x.x	x	x.x
	Second study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed live vaccine within 30 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed inactivated vaccine within 14 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x

Table 13: Per-Protocol Analysis Population Visit Exclusions by Study Arm and Study Visit Day (Continued)

Study Visit Day	Reason Subjects Excluded	Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)		All Subjects (N=X)	
		n	%	n	%	n	%	n	%
	Receipt of oral or parenteral (including intraarticular) corticosteroids of any dose within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of high-dose inhaled corticosteroids within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of chronic (defined as more than 14 days) immunosuppressants or other immune modifying drugs within 6 months of receipt of study vaccine	x	x.x	x	x.x	x	x.x	x	x.x
	Data from any visit that occurs outside the pre-defined protocol window.	x	x.x	x	x.x	x	x.x	x	x.x
Day 15 Post-Second Vaccination	Any Reason	x	x.x	x	x.x	x	x.x	x	x.x
	First study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
	Data from all available visits for subjects found to be ineligible at baseline.	x	x.x	x	x.x	x	x.x	x	x.x
	Second study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed live vaccine within 30 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed inactivated vaccine within 14 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of oral or parenteral (including intraarticular) corticosteroids of any dose within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of high-dose inhaled corticosteroids within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of chronic (defined as more than 14 days) immunosuppressants or other immune modifying drugs within 6 months of receipt of study vaccine	x	x.x	x	x.x	x	x.x	x	x.x
	Data from any visit that occurs outside the pre-defined protocol window.	x	x.x	x	x.x	x	x.x	x	x.x
Day 22 Post-Second Vaccination	Any Reason	x	x.x	x	x.x	x	x.x	x	x.x
	First study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
	Data from all available visits for subjects found to be ineligible at baseline.	x	x.x	x	x.x	x	x.x	x	x.x
	Second study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x

Table 13: Per-Protocol Analysis Population Visit Exclusions by Study Arm and Study Visit Day (Continued)

Study Visit Day	Reason Subjects Excluded	Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)		All Subjects (N=X)	
		n	%	n	%	n	%	n	%
	Receipt of non-study licensed live vaccine within 30 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed inactivated vaccine within 14 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of oral or parenteral (including intraarticular) corticosteroids of any dose within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of high-dose inhaled corticosteroids within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of chronic (defined as more than 14 days) immunosuppressants or other immune modifying drugs within 6 months of receipt of study vaccine	x	x.x	x	x.x	x	x.x	x	x.x
	Data from any visit that occurs outside the pre-defined protocol window.	x	x.x	x	x.x	x	x.x	x	x.x
Day 29 Post-Second Vaccination	Any Reason	x	x.x	x	x.x	x	x.x	x	x.x
	First study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
	Data from all available visits for subjects found to be ineligible at baseline.	x	x.x	x	x.x	x	x.x	x	x.x
	Second study vaccination not received	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed live vaccine within 30 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of non-study licensed inactivated vaccine within 14 days prior to or after each study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of oral or parenteral (including intraarticular) corticosteroids of any dose within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of high-dose inhaled corticosteroids within 30 days prior to study vaccination	x	x.x	x	x.x	x	x.x	x	x.x
	Receipt of chronic (defined as more than 14 days) immunosuppressants or other immune modifying drugs within 6 months of receipt of study vaccine	x	x.x	x	x.x	x	x.x	x	x.x
	Data from any visit that occurs outside the pre-defined protocol window.	x	x.x	x	x.x	x	x.x	x	x.x

N=Total number of enrolled subjects.

Table 14: Subject Disposition by Treatment Group

Subject Disposition	Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)		All Subjects (N=X)	
	n	%	n	%	n	%	n	%
Screened	--	--	--	--	--	--	x	--
Enrolled/Randomized	x	100	x	100	x	100	x	100
Received First Vaccination	x	x.x	x	x.x	x	x.x	x	x.x
Received First and Second Vaccination [a]	x	x.x	x	x.x	x	x.x	x	x.x
Received Second Vaccination Out of Window	x	x.x	x	x.x	x	x.x	x	x.x
Completed Day 1 Blood Draw	x	x.x	x	x.x	x	x.x	x	x.x
Completed Day 8 Blood Draw[b]	x	x.x	x	x.x	x	x.x	x	x.x
Completed Day 8 Post-Second Vaccination Blood Draw	x	x.x	x	x.x	x	x.x	x	x.x
Completed Day 15 Post-Second Vaccination Blood Draw	x	x.x	x	x.x	x	x.x	x	x.x
Completed Day 22 Post-Second Vaccination Blood Draw	x	x.x	x	x.x	x	x.x	x	x.x
Completed Day 29 Post-Second Vaccination Blood Draw	x	x.x	x	x.x	x	x.x	x	x.x
Completed Follow-up (Study Day 182[a]	x	x.x	x	x.x	x	x.x	x	x.x
Completed Per Protocol[c]	x	x.x	x	x.x	x	x.x	x	x.x

N=Total number of enrolled subjects.
[a]Refer to Listing 2 for reasons subjects discontinued or terminated early.
[b] Blood drawn prior to second vaccination
[c]Refer to Listing 5 for reasons subjects are excluded from the per protocol population

14.1.2 Demographic Data by Study Group

Table 15: Summary of Categorical Demographic and Baseline Characteristics by Treatment Group

		Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)		All Subjects (N=X)	
Variable	**Characteristic**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Sex	Male	x	x.x	x	x.x	x	x.x	x	x.x
	Female	x	x.x	x	x.x	x	x.x	x	x.x
Ethnicity	Not Hispanic or Latino	x	x.x	x	x.x	x	x.x	x	x.x
	Hispanic or Latino	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x
	Unknown	x	x.x	x	x.x	x	x.x	x	x.x
Race	American Indian or Alaska Native	x	x.x	x	x.x	x	x.x	x	x.x
	Asian	x	x.x	x	x.x	x	x.x	x	x.x
	Native Hawaiian or Other Pacific Islander	x	x.x	x	x.x	x	x.x	x	x.x
	Black or African American	x	x.x	x	x.x	x	x.x	x	x.x
	White	x	x.x	x	x.x	x	x.x	x	x.x
	Multi-Racial	x	x.x	x	x.x	x	x.x	x	x.x
	Unknown	x	x.x	x	x.x	x	x.x	x	x.x

N=Total number of enrolled subjects.

Table 16: Summary of Continuous Demographic and Baseline Characteristics by Treatment Group

Variable	Statistic	Study Arm 1 (ChAd3+Placebo) (N=X)	Study Arm 2 (ChAd3+ChAd3) (N=X)	Study Arm 3 (ChAd3+MVA-BN) (N=X)	All Subjects (N=X)
Age	Mean	x.x	x.x	x.x	x.x
	Standard Deviation	x.x	x.x	x.x	x.x
	Median	x.x	x.x	x.x	x.x
	Minimum	x	x	x	x
	Maximum	x	x	x	x
BMI	Mean	x.x	x.x	x.x	x.x
	Standard Deviation	x.x	x.x	x.x	x.x
	Median	x	x	x	x
	Minimum	x	x	x	x
	Maximum	x	x	x	x

N=Total number of enrolled subjects.

14.1.3 Summary of Pre-Existing Conditions/Medical History

Table 17: Summary of Subjects with Pre-Existing Medical Conditions by MedDRA® System Organ Class and Treatment Group

MedDRA® System Organ Class	Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)		All Subjects (N=X)	
	n	%	n	%	n	%	n	%
Any SOC	x	x.x	x	x.x	x	x.x	x	x.x
[SOC 1]	x	x.x	x	x.x	x	x.x	x	x.x
[SOC 2]	x	x.x	x	x.x	x	x.x	x	x.x

N=Total number of subjects in the Safety population; n = Number of subjects reporting medical history within the specified SOC. A subject is only counted once per SOC.

14.2 Immunogenicity Data

Table 18: Anti-EBOV GP ELISA Geometric Mean Titer (GMT) Results with 95% Confidence Intervals by Study Day and Treatment Group - Intent-to-Treat Population

Study Visit Day	Treatment Group	n	GMT	95% CI†
Day 1 First Vaccination	Study Arms 1, 2, and 3 (ChAd3) (N=X)*	n	x.x	x.x – x.x
Day 8 Post-First Vaccination (Second Vaccination)	Study Arms 1, 2, and 3 (ChAd3) (N=X)*	n	x.x	x.x – x.x
Day 8 Post-Second Vaccination	Study Arm 1(ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	n	x.x	x.x – x.x
Day 15 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	n	x.x	x.x – x.x
Day 22 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	n	x.x	x.x – x.x
Day 29 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	s	x.x	x.x – x.x

N=Number of subjects in the Intent-to-Treat Population. n = Number of subjects with valid test results.
*: Subjects in treatment groups that received the same study product were analyzed jointly.
†: Confidence interval for the geometric mean based on Student's t-distribution.
GMT: Geometric Mean.

Repeat this table to summarize secondary anti-EBOV GP ELISA GMT for the per-protocol population, the exploratory anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40 GMT for the intent-to-treat population, and the exploratory anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40 GMT for the per-protocol population.

Table 19: Anti-EBOV GP ELISA Geometric Mean Fold Rise (GMFR) Results with 95% Confidence Intervals by Study Day and Treatment Group - Intent-to-Treat Population

Study Visit Day	Treatment Group	n	GMFR	95% CI†
Day 8 Post-First Vaccination (Second Vaccination)	Study Arms 1, 2, and 3 (ChAd3) (N=X)*	n	x.x	x.x – x.x
Day 8 Post-Second Vaccination	Study Arm 1(ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	n	x.x	x.x – x.x
Day 15 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	n	x.x	x.x – x.x
Day 22 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	n	x.x	x.x – x.x
Day 29 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	s	x.x	x.x – x.x

N=Number of subjects in the Intent-to-Treat Population. n = Number of subjects with valid test results.
*: Subjects in treatment groups that received the same study product were analyzed jointly.
†: Confidence interval for the geometric mean based on Student's t-distribution.
GMFR represents the geometric mean fold rise in antibody compared to pre-dose 1.

Repeat this table to summarize secondary anti-EBOV GP ELISA GMFR for the per-protocol population, the exploratory anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40 GMFR for the intent-to-treat population, and the exploratory anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40 GMFR for the per-protocol population.

Table 20: Anti-EBOV GP ELISA Seroconversion Results with 95% Confidence Intervals by Study Day and Treatment Group - Intent-to-Treat Population

Study Visit Day	Treatment Group	n	Seroconversion n/N(%)	Seroconversion 95% CI†
Day 8 Post-First Vaccination (Second Vaccination)	Study Arms 1, 2, and 3 (ChAd3) (N=X)*	n	x.x	x.x – x.x
Day 8 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	n	x.x	x.x – x.x
Day 15 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	n	x.x	x.x – x.x
Day 22 Post-Second Vaccination	Study Arm 1(ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	n	x.x	x.x – x.x
Day 29 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	n	x.x	x.x – x.x
	Study Arm 2 (ChAd3+ChAd3) (N=X)	n	x.x	x.x – x.x
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	s	x.x	x.x – x.x

N=Number of subjects in the Intent-to-Treat Population. n = Number of subjects with valid laboratory results.
*: Subjects in treatment groups that received the same study product were analyzed jointly.
†: Confidence interval for seroconversion is based on Based on Clopper-Pearson.
Seroconversion is defined as having a pre-dose titer ≤ 50 and post-dose titer of > 50 or fold ride ≥ 4 as compared to baseline titer > 50.

Repeat this table to summarize secondary anti-EBOV GP ELISA seroconversion for the per-protocol population.

Table 21: Comparison of anti-EBOV GP ELISA Titer Between Treatment Groups Post-Second Vaccination by Study Day and Treatment Group - Intent-to-Treat Analysis Population

Study Visit Day	Group A	Group B	n A	n B	GMT A	GMT B	Ratio (95% CI)†	Difference (95% CI) [log_2 scale]†	P-Value‡
Day 8 Post-Second Vaccination	Study Arm 2 (ChAd3+ChAd3) (N=X)	Study Arm 1 (ChAd3+Placebo) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	Study Arm 1 (ChAd3+Placebo) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	Study Arm 2 (ChAd3+ChAd3) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
Day 15 Post-Second Vaccination	Study Arm 2 (ChAd3+ChAd3) (N=X)	Study Arm 1 (ChAd3+Placebo) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	Study Arm 1 (ChAd3+Placebo) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	Study Arm 2 (ChAd3+ChAd3) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
Day 22 Post-Second Vaccination	Study Arm 2 (ChAd3+ChAd3) (N=X)	Study Arm 1 (ChAd3+Placebo) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	Study Arm 1 (ChAd3+Placebo) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	Study Arm 2 (ChAd3+ChAd3) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
Day 29 Post-Second Vaccination	Study Arm 2 (ChAd3+ChAd3) (N=X)	Study Arm 1 (ChAd3+Placebo) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	Study Arm 1 (ChAd3+Placebo) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx
	Study Arm 3 (ChAd3+MVA-BN) (N=X)	Study Arm 2 (ChAd3+ChAd3) (N=X)	xx	xx	xx.x	xx.x	xx.x (xx.x – xx.x)	xx.x (xx.x – xx.x)	0.xxx

N=Number of subjects in the Intent-to-Treat Population; †: Based on Welch–Satterthwaite method. ‡: Based on Welch's t-test. n A: Number of subjects with valid laboratory results for comparison group A. n B: Number of subjects with valid laboratory results for comparison group B. GMT A: geometric mean titer group A. GMT B: geometric mean titer group B.

Repeat this table to compare anti-EBOV GP ELISA GMT for the per-protocol population, the exploratory anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40 GMT for the intent-to-treat population, and the exploratory anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40 GMT for the per-protocol population.

Table 22: Comparison of Anti-EBOV GP ELISA Seroconversion Between Treatment Groups Post-Second Vaccination by Study Day and Treatment Group - Intent-to-Treat Analysis Population

Study Visit Day	Group A	Group B	n/N (%) A	n/N (%) B	Odds Ratio (95% CI)	P-Value†
Day 8 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	Study Arm 2 (ChAd3+ChAd3) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
	Study Arm 1 (ChAd3+Placebo) (N=X)	Study Arm 3 (ChAd3+MVA-BN) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
	Study Arm 2 (ChAd3+ChAd3) (N=X)	Study Arm 3 (ChAd3+MVA-BN) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
Day 15 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	Study Arm 2 (ChAd3+ChAd3) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
	Study Arm 1 (ChAd3+Placebo) (N=X)	Study Arm 3 (ChAd3+MVA-BN) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
	Study Arm 2 (ChAd3+ChAd3) (N=X)	Study Arm 3 (ChAd3+MVA-BN) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
Day 22 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	Study Arm 2 (ChAd3+ChAd3) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
	Study Arm 1 (ChAd3+Placebo) (N=X)	Study Arm 3 (ChAd3+MVA-BN) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
	Study Arm 2 (ChAd3+ChAd3) (N=X)	Study Arm 3 (ChAd3+MVA-BN) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
Day 29 Post-Second Vaccination	Study Arm 1 (ChAd3+Placebo) (N=X)	Study Arm 2 (ChAd3+ChAd3) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
	Study Arm 1 (ChAd3+Placebo) (N=X)	Study Arm 3 (ChAd3+MVA-BN) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx
	Study Arm 2 (ChAd3+ChAd3) (N=X)	Study Arm 3 (ChAd3+MVA-BN) (N=X)	xx/xx (xx.x%)	xx/xx (xx.x%)	x.xx (x.xx – x.xx)	0.xxx

N=Number of subjects in the Intent-to-Treat Population.
†: Based on Fisher's exact test.
n A: Number of subjects with valid laboratory results for comparison group A.
n B: Number of subjects with valid laboratory results for comparison group B.

Repeat this table to compare anti-EBOV GP ELISA seroconversion for the per-protocol population.

14.3 Safety Data

14.3.1 Displays of Adverse Events

Table 23: Overall Summary of Adverse Events

	Study Arm 1 ChAd3+Placebo (N=X)		Study Arm 2 ChAd3+ChAd3 (N=X)		Study Arm 3 ChAd3+MVA-BN (N=X)		All Subjects (N = X)	
Subjects* with	n	n%	n	%	n	%	n	%
At least one local solicited adverse event	x	x.x	x	x.x	x	x.x	x	x.x
At least one systemic solicited adverse event	x	x.x	x	x.x	x	x.x	x	x.x
At least one laboratory adverse event	x	x.x	x	x.x	x	x.x	x	x.x
At least one vaccine-related unsolicited adverse event	x	x.x	x	x.x	x	x.x	x	x.x
Mild (Grade 1)	x	x.x	x	x.x	x	x.x	x	x.x
Moderate (Grade 2)	x	x.x	x	x.x	x	x.x	x	x.x
Severe (Grade 3)	x	x.x	x	x.x	x	x.x	x	x.x
At least one serious adverse event†	x	x.x	x	x.x	x	x.x	x	x.x
At least one vaccine-related medically attended adverse event§	x	x.x	x	x.x	x	x.x	x	x.x

N = Number of subjects in the Safety Population. *: Subjects are counted once for each category regardless of the number of events. †: A listing of Serious Adverse Events is included in Table 28. ‡: As reported on the Adverse Event eCRF. §: All vaccine-related medically attended adverse events are included in Table 29.

14.3.1.1 Solicited Adverse Events

Table 24: Number and Percentage of Subjects Experiencing Solicited Events with 95% Confidence Intervals by Symptom, Dose, and Treatment Group

	Post Dose 1 Study Arm 1,2,3 ChAd3 (N=X)*			Post Dose 2 Study Arm 1 ChAd3+Placebo (N=X)			Post Dose 2 Study Arm 2 ChAd3+ChAd3 (N=X)			Post Dose 2 Study Arm 3 ChAd3+MVA-BN (N=X)			Post Either Dose Study Arm 1 ChAd3+Placebo (N=X)			Post Either Dose Study Arm 2 ChAd3+ChAd3 (N=X)			Post Either Dose Study Arm 3 ChAd3+MVA-BN (N=X)		
Symptom	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**	**n**	**%**	**95% C†I**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**
Any Symptom	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Any Systemic Symptom	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Elevated Oral Temperature	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Feverishness	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Malaise	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Fatigue	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Myalgia	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Headache	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Nausea	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Loss of Appetite	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Any Local Symptom	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Pain	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x

Table 24: Number and Percentage of Subjects Experiencing Solicited Events with 95% Confidence Intervals by Symptom, Dose, and Treatment Group (Continued)

	Post Dose 1 Study Arm 1,2,3 ChAd3 (N=X)*			Post Dose 2 Study Arm 1 ChAd3+Placebo (N=X)			Post Dose 2 Study Arm 2 ChAd3+ChAd3 (N=X)			Post Dose 2 Study Arm 3 ChAd3+MVA-BN (N=X)			Post Either Dose Study Arm 1 ChAd3+Placebo (N=X)			Post Either Dose Study Arm 2 ChAd3+ChAd3 (N=X)			Post Either Dose Study Arm 3 ChAd3+MVA-BN (N=X)		
Symptom	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**	**n**	**%**	**95% C†I**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**
Tenderness	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Pruritis	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Ecchymosis (Functional Grade)	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Ecchymosis (Measurement Grade)	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Erythema (Functional Grade)	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Erythema (Measurement Grade)	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Induration (Functional Grade)	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Induration (Measurement Grade)	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x

N = Number of subjects in the Safety Population who received the specified dose.
*: Subjects in treatment groups that received the same study product were analyzed jointly.
†: Based on Clopper-Pearson.

Table 25: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, Dose, and Treatment Group

Symptom	Severity	Post Dose 1 Study Arm 1,2,3 ChAd3 (N=X)*			Post Dose 2 Study Arm 1 ChAd3+Placebo (N=X)			Post Dose 2 Study Arm 2 ChAd3+ChAd3 (N=X)			Post Dose 2 Study Arm 3 ChAd3+MVA-BN N=X)			Post Either Dose Study Arm 1 ChAd3+Placebo (N=X)			Post Either Dose Study Arm 2 ChAd3+ChAd3 (N=X)			Post Either Dose Study Arm 3 ChAd3+MVA-BN (N=X)		
		n	%	95% CI	N	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Any Symptom	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Any Systemic Symptom	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Elevated Oral Temperature	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x

Table 25: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, Dose, and Treatment Group (Continued)

		Post Dose 1 Study Arm 1,2,3 ChAd3 (N=X)*			Post Dose 2 Study Arm 1 ChAd3+Placebo (N=X)			Post Dose 2 Study Arm 2 ChAd3+ChAd3 (N=X)			Post Dose 2 Study Arm 3 ChAd3+MVA-BN N=X)			Post Either Dose Study Arm 1 ChAd3+Placebo (N=X)			Post Either Dose Study Arm 2 ChAd3+ChAd3 (N=X)			Post Either Dose Study Arm 3 ChAd3+MVA-BN (N=X)		
Symptom	**Severity**	**n**	**%**	**95% CI**	**N**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**
Feverishness	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Malaise	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Fatigue	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x

Table 25: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, Dose, and Treatment Group (Continued)

		Post Dose 1 Study Arm 1,2,3 ChAd3 (N=X)*			Post Dose 2 Study Arm 1 ChAd3+Placebo (N=X)			Post Dose 2 Study Arm 2 ChAd3+ChAd3 (N=X)			Post Dose 2 Study Arm 3 ChAd3+MVA-BN N=X)			Post Either Dose Study Arm 1 ChAd3+Placebo (N=X)			Post Either Dose Study Arm 2 ChAd3+ChAd3 (N=X)			Post Either Dose Study Arm 3 ChAd3+MVA-BN (N=X)		
Symptom	**Severity**	**n**	**%**	**95% CI**	**N**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**
Myalgia	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Headache	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Nausea	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x

Table 25: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, Dose, and Treatment Group (Continued)

Symptom	Severity	Post Dose 1 Study Arm 1,2,3 ChAd3 (N=X)*			Post Dose 2 Study Arm 1 ChAd3+Placebo (N=X)			Post Dose 2 Study Arm 2 ChAd3+ChAd3 (N=X)			Post Dose 2 Study Arm 3 ChAd3+MVA-BN N=X)			Post Either Dose Study Arm 1 ChAd3+Placebo (N=X)			Post Either Dose Study Arm 2 ChAd3+ChAd3 (N=X)			Post Either Dose Study Arm 3 ChAd3+MVA-BN (N=X)		
		n	%	95% CI	N	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Loss of Appetite	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Any Local Symptom	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Pain	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x

Table 25: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, Dose, and Treatment Group (Continued)

		Post Dose 1 Study Arm 1,2,3 ChAd3 (N=X)*			Post Dose 2 Study Arm 1 ChAd3+Placebo (N=X)			Post Dose 2 Study Arm 2 ChAd3+ChAd3 (N=X)			Post Dose 2 Study Arm 3 ChAd3+MVA-BN N=X)			Post Either Dose Study Arm 1 ChAd3+Placebo (N=X)			Post Either Dose Study Arm 2 ChAd3+ChAd3 (N=X)			Post Either Dose Study Arm 3 ChAd3+MVA-BN (N=X)		
Symptom	**Severity**	**n**	**%**	**95% CI**	**N**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**	**n**	**%**	**95% CI**
Tenderness	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Pruritus	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Ecchymosis (Functional grade)	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x

Table 25: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, Dose, and Treatment Group (Continued)

Symptom	Severity	Post Dose 1 Study Arm 1,2,3 ChAd3 (N=X)*			Post Dose 2 Study Arm 1 ChAd3+Placebo (N=X)			Post Dose 2 Study Arm 2 ChAd3+ChAd3 (N=X)			Post Dose 2 Study Arm 3 ChAd3+MVA-BN N=X)			Post Either Dose Study Arm 1 ChAd3+Placebo (N=X)			Post Either Dose Study Arm 2 ChAd3+ChAd3 (N=X)			Post Either Dose Study Arm 3 ChAd3+MVA-BN (N=X)		
		n	%	95% CI	N	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Ecchymosis (Measurement grade)	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Erythema (Functional grade)	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Erythema (Measurement grade)	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x

Table 25: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, Dose, and Treatment Group (Continued)

Symptom	Severity	Post Dose 1 Study Arm 1,2,3 ChAd3 (N=X)*			Post Dose 2 Study Arm 1 ChAd3+Placebo (N=X)			Post Dose 2 Study Arm 2 ChAd3+ChAd3 (N=X)			Post Dose 2 Study Arm 3 ChAd3+MVA-BN N=X)			Post Either Dose Study Arm 1 ChAd3+Placebo (N=X)			Post Either Dose Study Arm 2 ChAd3+ChAd3 (N=X)			Post Either Dose Study Arm 3 ChAd3+MVA-BN (N=X)		
		n	%	95% CI	N	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI	n	%	95% CI
Induration (Functional grade)	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
Induration (Measurement grade)	None	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Mild	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Moderate	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x
	Severe	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x	x	x.x	x.x, x.x

N = Number of subjects in the Safety Analysis Population who received the specified dose.
Severity is the maximum severity reported over all solicited symptoms post dosing for each subject.
*: Subjects in treatment groups that received the same study product were analyzed jointly.
†: Based on Clopper-Pearson.

Table 26: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, and Day (Study Arm 1, 2, and 3 (ChAD3) - Post Dose 1)

Symptom	Severity	Pre-Dose		Post-Dose		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7		Day 8	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Any Symptom	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Systemic Symptoms																					
Any Systemic Symptom	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Elevated Oral Temperature	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Feverishness (Measurement Grade)	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x

Table 26: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, and Day (Study Arm 1, 2, and 3 (ChAD3) - Post Dose 1) (Continued)

		Pre-Dose		Post-Dose		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7		Day 8	
Symptom	Severity	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Malaise	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Fatigue	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Myalgia	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Headache	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Nausea	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x

Table 26: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, and Day (Study Arm 1, 2, and 3 (ChAD3) - Post Dose 1) (Continued)

Symptom	Severity	Pre-Dose		Post-Dose		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7		Day 8	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Loss of Appetite	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Local Symptoms																					
Any Local Symptom	None	x	xx	x	xx	x	xx	x	xx	x	xx	x	xx	x	xx	x	xx	x	xx	x	xx
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Not Reported	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Pain	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Tenderness	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Pruritus	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x

Table 26: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, and Day (Study Arm 1, 2, and 3 (ChAD3) - Post Dose 1) (Continued)

Symptom	Severity	Pre-Dose		Post-Dose		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7		Day 8	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Ecchymosis (Functional grade)	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Ecchymosis (Measurement grade)	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Erythema (Functional grade)	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Erythema (Measurement grade)	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x

Table 26: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, and Day (Study Arm 1, 2, and 3 (ChAD3) - Post Dose 1) (Continued)

Symptom	Severity	Pre-Dose		Post-Dose		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7		Day 8	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Induration (Functional grade)	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Induration (Measurement grade)	None	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x

N = Number of subjects in the Safety Analysis Population who received the specified dose.
Severity is the maximum severity reported post dosing for each subject for each day.
*: Subjects in treatment groups that received the same study product were analyzed jointly.

Repeat this table for all three study arms post-second dose: Study Arm 1 ChAd3+Placebo Post Dose 2, Study Arm 2 ChAd3+ChAd3 Post Dose 2, and Study Arm 3 ChAd3+MVA-BN Post Dose 2.

14.3.1.2 Unsolicited Adverse Events

Table 27: Number and Percentage of Subjects Experiencing Vaccine-related Unsolicited Adverse Events with 95% Confidence Intervals by MedDRA® System Organ Class and Preferred Term, and Treatment Group

MedDRA System Organ Class	MedDRA Preferred Term	Study Arm 1 ChAd3+Placebo (N=X)			Study Arm 2 ChAd3+ChAd3 (N=X)			Study Arm 3 ChAd3+MVA-BN (N=X)		
		n	%	95% CI†	n	%	95% CI†	n	%	95% CI†
Any SOC	Any PT	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
[SOC 1]	Any PT	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	[PT 1]	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	[PT 2]	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
[SOC 2]	Any PT	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	[PT 1]	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	[PT 2]	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x

Note: N = number of subjects in the Safety Analysis Population.
This table presents number and percentage of subjects. A subject is only counted once per PT.
†: Based on Clopper-Pearson.

Table 28: Number and Percentage of Subjects Experiencing Any Unsolicited Adverse Events with 95% Confidence Intervals by MedDRA® System Organ Class and Preferred Term, and Treatment Group

MedDRA System Organ Class	MedDRA Preferred Term	Study Arm 1 ChAd3+Placebo (N=X)			Study Arm 2 ChAd3+ChAd3 (N=X)			Study Arm 3 ChAd3+MVA-BN (N=X)		
		n	%	95% CI†	n	%	95% CI†	n	%	95% CI†
Any SOC	Any PT	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
[SOC 1]	Any PT	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	[PT 1]	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	[PT 2]	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
[SOC 2]	Any PT	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	[PT 1]	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	[PT 2]	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x

Note: N = number of subjects in the Safety Analysis Population.
This table presents number and percentage of subjects. A subject is only counted once per PT.
†: Based on Clopper-Pearson.

Table 29: Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Treatment Group

MedDRA System Organ Class	Preferred Term	Severity	Study Arm 1 ChAd3+Placebo (N=X)						Study Arm 2 ChAd3+ChAd3 (N=X)						Study Arm 3 ChAd3+MVA-BN (N=X)					
			Related		Not Related		Total		Related		Not Related		Total		Related		Not Related		Total	
			n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Any SOC	Any PT	Any Severity	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
		Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
		Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
		Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
SOC 1	PT 1	Any Severity	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
		Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
		Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
		Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	PT 2	Any Severity	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
		Mild	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
		Moderate	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
		Severe	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x

N = Number of subjects in the Safety Population. For severity, a subject is counted once per preferred term and is summarized according to their highest severity. For vaccine-relatedness, a subject is only counted once per preferred term and is summarized according to their closest relationship.

14.3.2 Listing of Deaths, Other Serious and Significant Adverse Events

Table 30: Listing of Serious Adverse Events

Adverse Event	Associated with Dose #	# of Days Post Associated Dose (Duration)	# of Days Post Dose the Event Became Serious	Reason Reported as an SAE	Severity	Relationship to Study Treatment	If Not Related, Alternative Etiology	Action Taken with Study Treatment	Subject Discontinued Due to AE	Outcome	MedDRA System Organ Class	MedDRA Preferred Term
Subject ID: , Treatment Group: , AE Number:												
Comments:												
Subject ID: , Treatment Group: , AE Number:												
Comments:												

Table 31: Listing of Vaccine-Related Medically Attended Adverse Events

Adverse Event	Associated with Dose No.	No. of Days Post Associated Dose (Duration)	Severity	Relationship to Study Treatment	If Not Related, Alternative Etiology	Action Taken with Study Treatment	Subject Discontinued Due to AE	Outcome	MedDRA System Organ Class	MedDRA Preferred Term
Subject ID: Treatment Group: AE Number:										
Comments:										
Subject ID: Treatment Group: AE Number:										
Comments:										

Table 32: Listing of Non-Serious, Unsolicited, Moderate or Severe Adverse Events

Adverse Event	Associated with Dose #	# of Days Post Associated Dose (Duration)	Severity	Relationship to Study Treatment	If Not Related, Alternative Etiology	Action Taken with Study Treatment	Subject Discontinued Due to AE	Outcome	MedDRA System Organ Class	MedDRA Preferred Term
Subject ID: , Treatment Group: , AE Number:										
Comments:										
Subject ID: , Treatment Group: , AE Number:										
Comments:										

14.3.3 Narratives of Deaths, Other Serious and Significant Adverse Events

Not included in SAP, but this is a placeholder for the CSR.

14.3.4 Abnormal Laboratory Value Listings (by Subject)

Table 33: Listing of Abnormal Laboratory Results - Chemistry

Subject ID	Treatment Group	Sex	Age (years)	Planned Time Point	Actual Study Day	Laboratory Parameter (Units)	Result (Severity)	Relationship to Treatment	If Not Related, Alternate Etiology	Action Taken with Study Treatment	Subject Discontinued Due to Result?

Table 34: Listing of Abnormal Laboratory Results - Hematology

Subject ID	Treatment Group	Sex	Age (years)	Planned Time Point	Actual Study Day	Laboratory Parameter (Units)	Result (Severity)	Relationship to Treatment	If Not Related, Alternate Etiology	Action Taken with Study Treatment	Subject Discontinued Due to Result?

14.3.5 Displays of Laboratory Results

14.3.5.2 Hematology Results

Table 35: Laboratory Results by Parameter, Maximum Severity, Study Day, and Treatment Group – Any Hematology Parameter

			None			Mild			Moderate			Severe			Missing		
Study Visit Day	**Treatment Group**	**N**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**	**n**	**%**	**95% CI†**
Baseline (First Vaccination)	Study Arm 1, 2, 3 ChAd3 (N=X)*	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
Day 8 (Second vaccination)	Study Arm 1, 2, 3 ChAd3 (N=X)*	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
Day 8 Post-Second Vaccination	Study Arm 1 ChAd3+Placebo (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
Day 22 Post-Second Vaccination	Study Arm 1 ChAd3+Placebo (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
Day 29 Post-Second Vaccination	Study Arm 1 ChAd3+Placebo (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
Max Severity Post Baseline	Study Arm 1 ChAd3+Placebo (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x	x	x.x	x.x – x.x

N = Number of subjects in the Safety Population
Note: The "Max Post Baseline" rows indicate the maximum severity experienced by each subject at any time point post baseline, including unscheduled assessments.
*: Subjects in treatment groups that received the same study product were jointly analyzed.
†: Based on Clopper-Pearson.

Generate this table for each hematology laboratory parameter: Absolute Neutrophil Count, Hgb (Decrease), Platelet (Decrease), Platelet (Increase), WBC (Decrease), WBC (Increase) and chemistry parameter: Any Chemistry Parameter, ALT (Increase), BUN, Creatinine (Increase), Potassium (High), Potassium (Low), Sodium (High), Sodium (Low).

Table 36: Laboratory Summary Statistics by Parameter, Study Day, and Treatment Group – Absolute Neutrophil Count (K/mcL)

Time Point	Treatment Group	N	Mean	Standard Deviation	Median	Min, Max
Baseline (First Vaccination)	Study Arm 1,2,3 ChAd3 (N=X)*	x	x.x	x.x	x	x, x
Day 8 (Second Vaccination)	Study Arm 1,2,3 ChAd3 (N=X)*	x	x.x	x.x	x	x, x
Day 8 Post-Second Vaccination	Study Arm 1 ChAd3+Placebo (N=X)	x	x.x	x.x	x	x, x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x.x	x.x	x	x, x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x.x	x.x	x	x, x
Day 22 Post-Second Vaccination	Study Arm 1 ChAd3+Placebo (N=X)	x	x.x	x.x	x	x, x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x.x	x.x	x	x, x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x.x	x.x	x	x, x
Day 29 Post-Second Vaccination	Study Arm 1 ChAd3+Placebo (N=X)	x	x.x	x.x	x	x, x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x.x	x.x	x	x, x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x.x	x.x	x	x, x
Max Severity Post Baseline	Study Arm 1 ChAd3+Placebo (N=X)	x	x.x	x.x	x	x, x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x.x	x.x	x	x, x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x.x	x.x	x	x, x

N = Number of subjects in the Safety Population.
Note: The "Max Post Baseline" rows indicate the maximum severity experienced by each subject at any time point post baseline, including unscheduled assessments.
*: Subjects in treatment groups that received the same study product were jointly analyzed.

Generate this table for each hematology laboratory parameter: Absolute Neutrophil Count (K/mcL), Hgb (g/dL), Platelet count (K/mcL), WBC (K/mcL) and chemistry parameter: ALT (unit/L), BUN (mg/dL), Creatinine (mg/dL), Potassium (mmol/L), and Sodium, (mmol/L).

Table 37: Laboratory Summary Statistics by Parameter, Study Day, and Treatment Group – Fold Change in Absolute Neutrophil Count (K/mcL) Relative to Pre-First Vaccination

Time Point	Treatment Group	N	Mean	Standard Deviation	Median	Min, Max
Day 8 (Second Vaccination)	Study Arm 1,2,3 ChAd3 (N=X)*	x	x.x	x.x	x.x	x.x, x.x
Day 8 Post-Second Vaccination	Study Arm 1 ChAd3+Placebo (N=X)	x	x.x	x.x	x.x	x.x, x.x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x.x	x.x	x.x	x.x, x.x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x.x	x.x	x.x	x.x, x.x
Day 22 Post-Second Vaccination	Study Arm 1 ChAd3+Placebo (N=X)	x	x.x	x.x	x.x	x.x, x.x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x.x	x.x	x.x	x.x, x.x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x.x	x.x	x.x	x.x, x.x
Day 29 Post-Second Vaccination	Study Arm 1 ChAd3+Placebo (N=X)	x	x.x	x.x	x.x	x.x, x.x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x.x	x.x	x.x	x.x, x.x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x.x	x.x	x.x	x.x, x.x
Max Severity Post Baseline	Study Arm 1 ChAd3+Placebo (N=X)	x	x.x	x.x	x.x	x.x, x.x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x.x	x.x	x.x	x.x, x.x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x.x	x.x	x.x	x.x, x.x

N = Number of subjects in the Safety Population.
*: Subjects in treatment groups that received the same study product were jointly analyzed.

Generate this table for each hematology laboratory parameter: Absolute Neutrophil Count (K/mcL), Hgb (g/dL), Platelet count (K/mcL), WBC (K/mcL) and chemistry parameter: ALT (unit/L), BUN (mg/dL), Creatinine (mg/dL), Potassium (mmol/L), and Sodium (mmol/L).

14.3.6 Displays of Vital Signs

Table 38: Vital Signs by Assessment, Maximum Severity, Study Day, and Treatment Group – Any Assessment

Time Point	Treatment Group	N	None		Mild		Moderate		Severe		Missing	
			n	%	n	%	n	%	n	%	n	%
Baseline (First Vaccination)	Study Arm 1,2,3 ChAd3 (N=X)*	x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
Day 8 (Second Vaccination)	Study Arm 1 ChAd3+Placebo (N=X)	x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Study Arm 2 ChAd3+ChAd3 (N=X)	x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x
	Study Arm 3 ChAd3+MVA-BN (N=X)	x	x	x.x	x	x.x	x	x.x	x	x.x	x	x.x

N = Number of subjects in the Safety Population
*: Subjects in treatment groups that received the same study product were jointly analyzed.
Vital signs assessed on Day 1 prior to the first study vaccination will be considered as baseline.

Generate this table for each vital assessment: Any Assessment, Oral Temperature, Pulse (Bradycardia), Pulse (Tachycardia), Hypotension (systolic), Hypotension (diastolic), Hypertension (systolic), and Hypertension (diastolic).

14.4 Summary of Concomitant Medications

Table 39: Number and Percentage of Subjects with Prior and Concurrent Medications by WHO Drug Classification and Treatment Group

WHO Drug Code Level 1, Anatomic Group	WHO Drug Code Level 2, Therapeutic Subgroup	Study Arm 1 (ChAd3+Placebo) (N=X)		Study Arm 2 (ChAd3+ChAd3) (N=X)		Study Arm 3 (ChAd3+MVA-BN) (N=X)		All Subjects (N=X)	
		n	%	n	%	n	%	n	%
Any Level 1 Codes	Any Level 2 Codes	x	x.x	x	x.x	x	x.x	x	x.x
[ATC Level 1 - 1]	Any [ATC 1 – 1]	x	x.x	x	x.x	x	x.x	x	x.x
	[ATC 2 - 1]	x	x.x	x	x.x	x	x.x	x	x.x
	[ATC 2 - 2]	x	x.x	x	x.x	x	x.x	x	x.x
	[ATC 2 - 3]	x	x.x	x	x.x	x	x.x	x	x.x
[ATC Level 1 – 2]	[ATC 2 - 1]	x	x.x	x	x.x	x	x.x	x	x.x
	[ATC 2 - 2]	x	x.x	x	x.x	x	x.x	x	x.x
	[ATC 2 - 3]	x	x.x	x	x.x	x	x.x	x	x.x

N = Number of subjects in the Safety Population
n=Number of subjects reporting taking at least one medication in the specific WHO Drug Class.

APPENDIX 2. FIGURE MOCK-UPS

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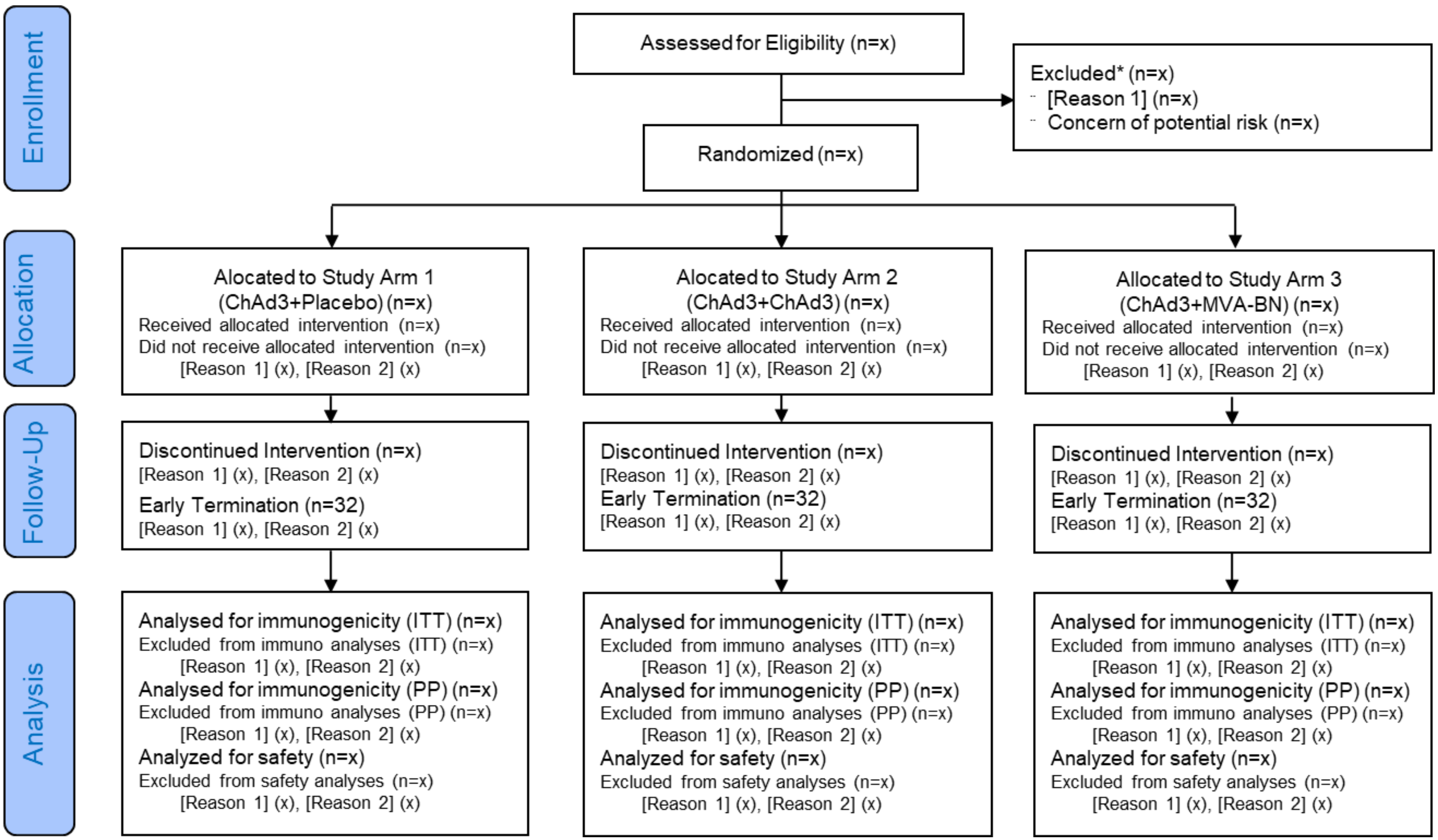
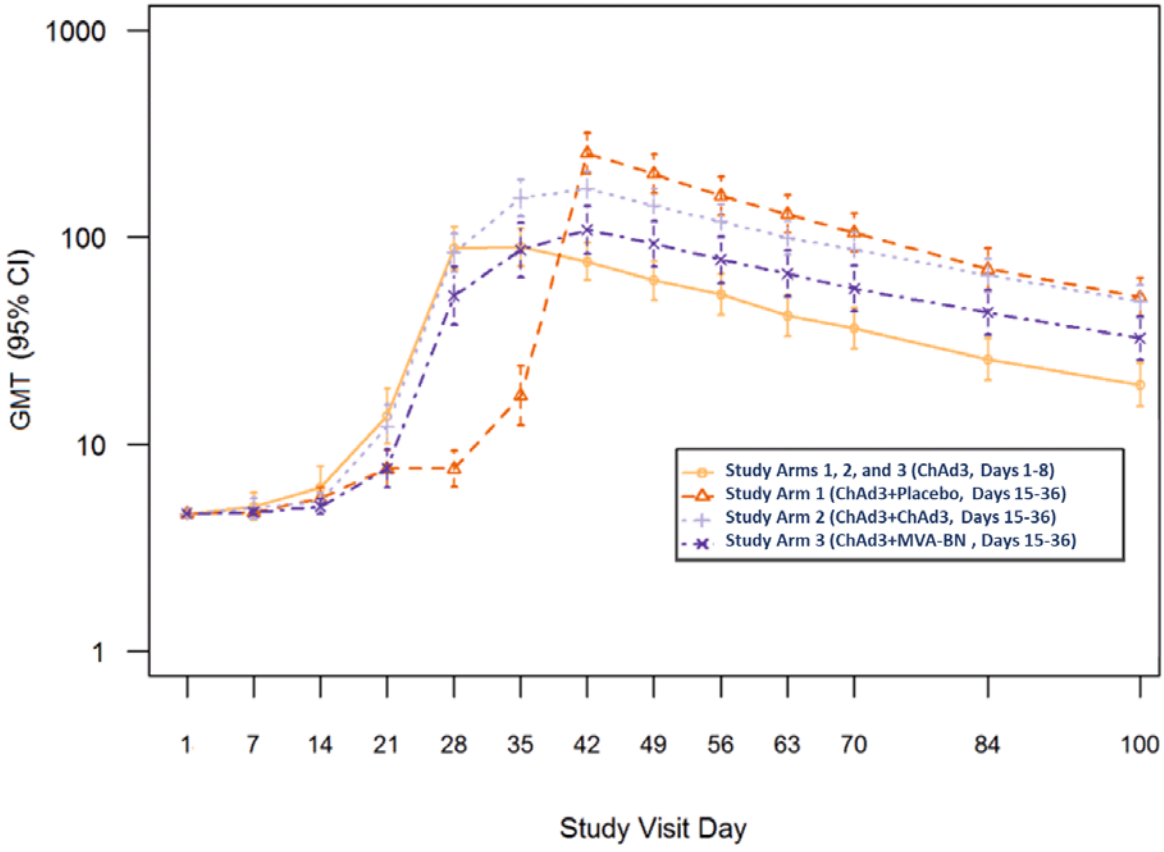
10.1 Disposition of Subjects

Figure 1: CONSORT Flow Diagram



14.2.3 Immunogenicity Response Figures by Measure, Treatment/Vaccination, and Time Point

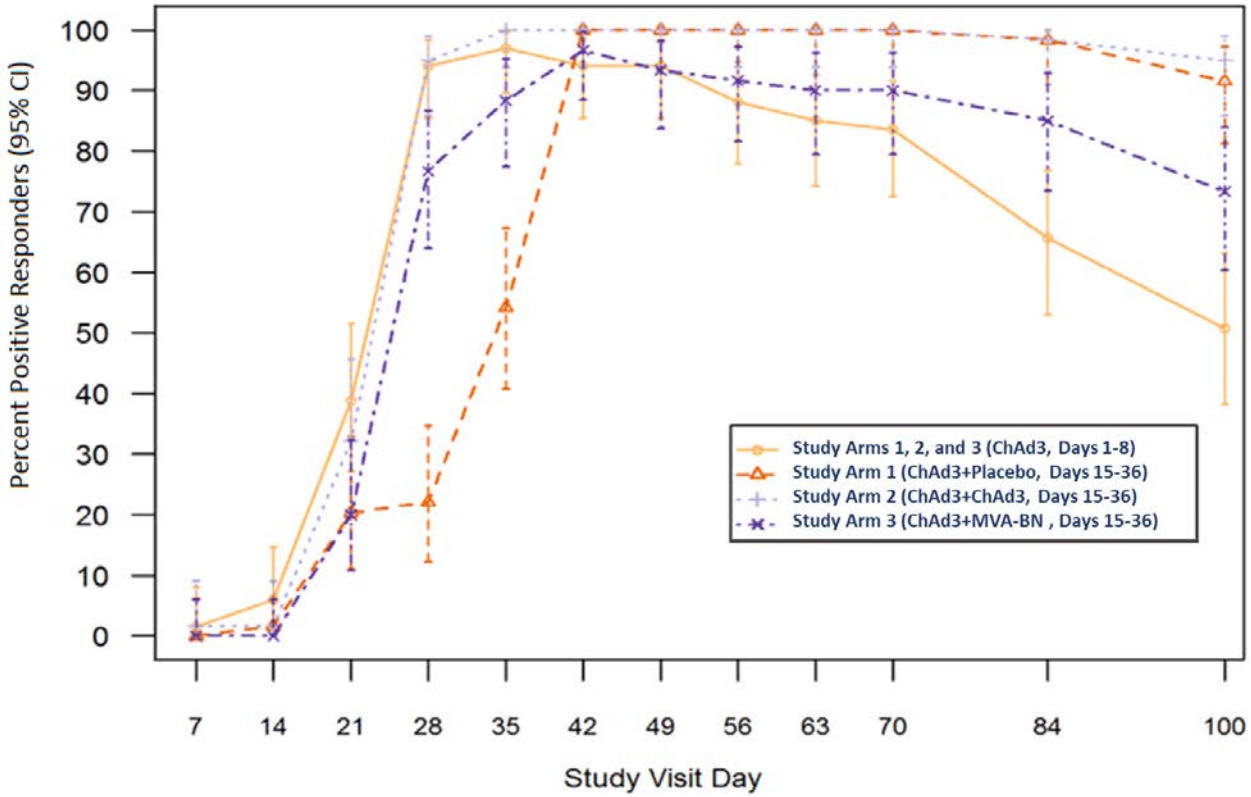
Figure 2: Anti EBOV-GB ELISA Antibody Titer Against EBOV GP by Study Visit Day and Treatment Group - Intent-to-Treat Analysis Population



Antibody Titer Results: Generate figures across Days 1, 8, 15, 29, and 36 post-first vaccination anti-EBOV GP ELISA antibody titer results (GMT and 95% CI) for the intent-to-treat and per-protocol analysis populations. Prior to second vaccination (Day 1 and 8), combine results for Study Arms 1, 2 and 3. Repeat this figure to summarize the exploratory anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40 GMT for the intent-to-treat population and the per-protocol analysis population.

Antibody Fold Change Results: Generate figures across Days 8, 15, 29, and 36 post-first vaccination anti-EBOV GP ELISA antibody titer results (GMFR and 95% CI) for the intent-to-treat and per-protocol analysis populations. Prior to second vaccination (Day 8), combine results for Study Arms 1, 2 and 3. Repeat this figure to summarize the exploratory anti-EBOV GP NEUT50 and anti-EBOV GP NEUT40 GMT for the intent-to-treat population and the per-protocol analysis population.

Figure 3: Percent Positive Responders (Seroconversion) for EBOV-GP ELISA by Study Visit Day and Treatment Group - Intent-to-Treat Population

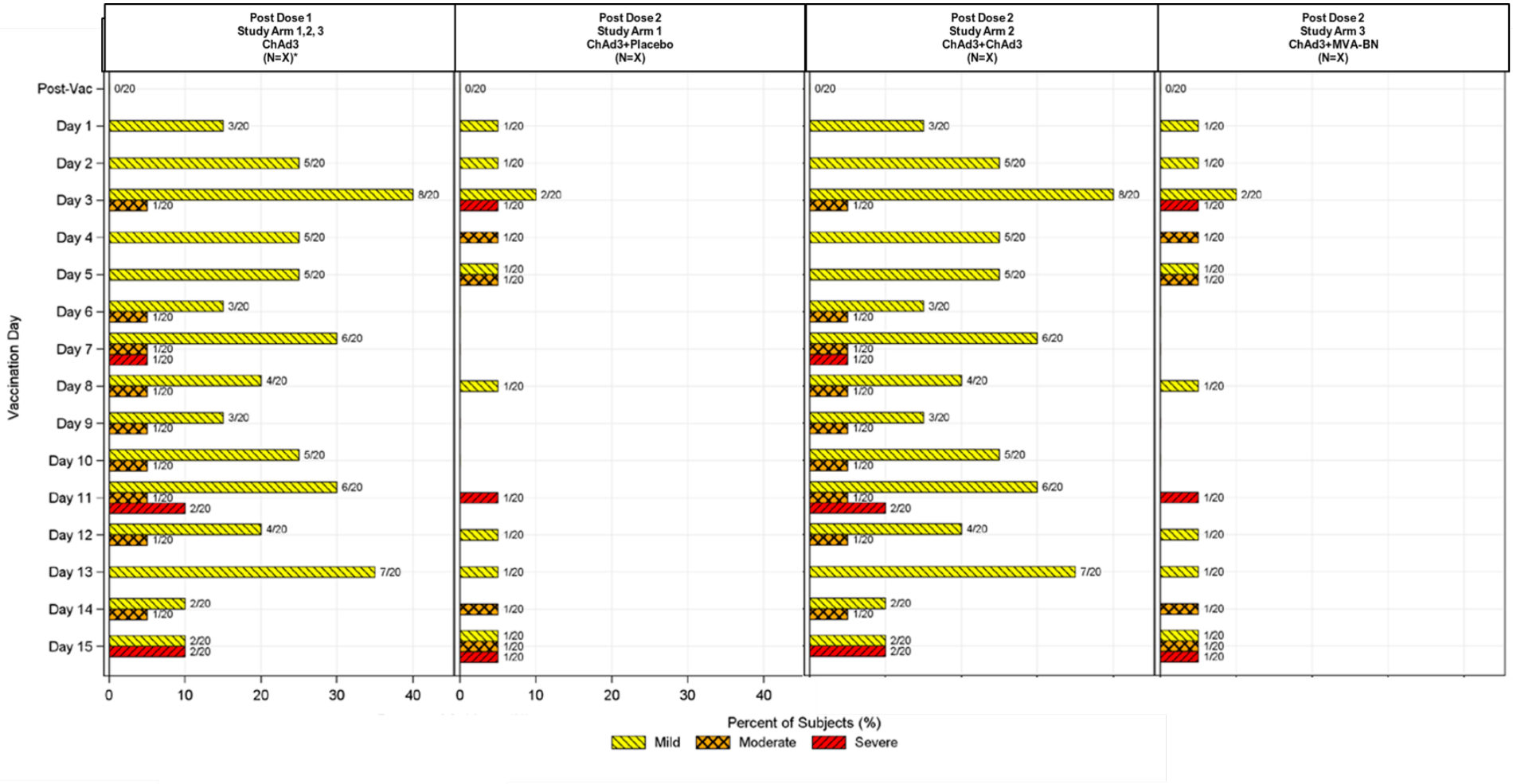


Seroconversion is defined as having a pre-dose titer ≤ 50 and post-dose titer of > 50 or fold ride ≥ 4 as compared to baseline titer > 50.

Antibody Titer Seroconversion Positive Responder Results: Generate figures across Days 8, 15, 22, 29, and 36 post-first vaccination anti-EBOV GP ELISA antibody titer results (percentage and associated 95% CI of positive responders) for the intent-to-treat and per-protocol analysis populations. Prior to second vaccination (Day 8), combine results for Study Arms 1, 2 and 3.

14.3.1.1 Solicited Adverse Events

Figure 4: Maximum Severity of Solicited Systemic Symptoms per Subject by Day Post Treatment



Prior to second vaccination, combine Study Arm 1, 2 and 3. Repeat for local symptoms.
*: Subjects in treatment groups that received the same study product were jointly analyzed.

14.3.1.2 Unsolicited Adverse Events

Figure 5: Frequency of Vaccine-related Adverse Events by MedDRA System Organ Class and Severity - Post-Any Vaccination

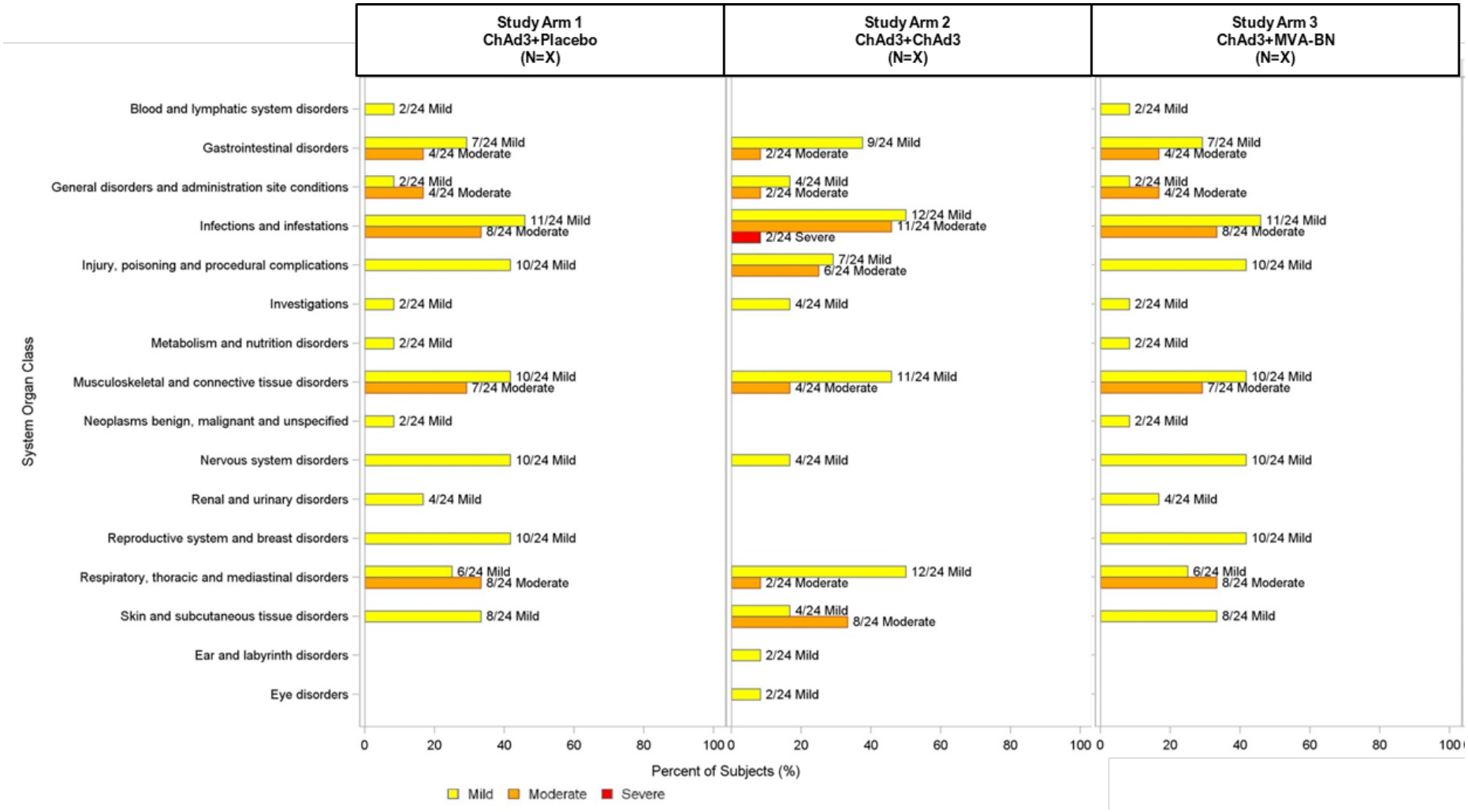


Figure 6: Incidence of Vaccine-related Adverse Events by MedDRA System Organ Class and Severity - Post-Any Vaccination

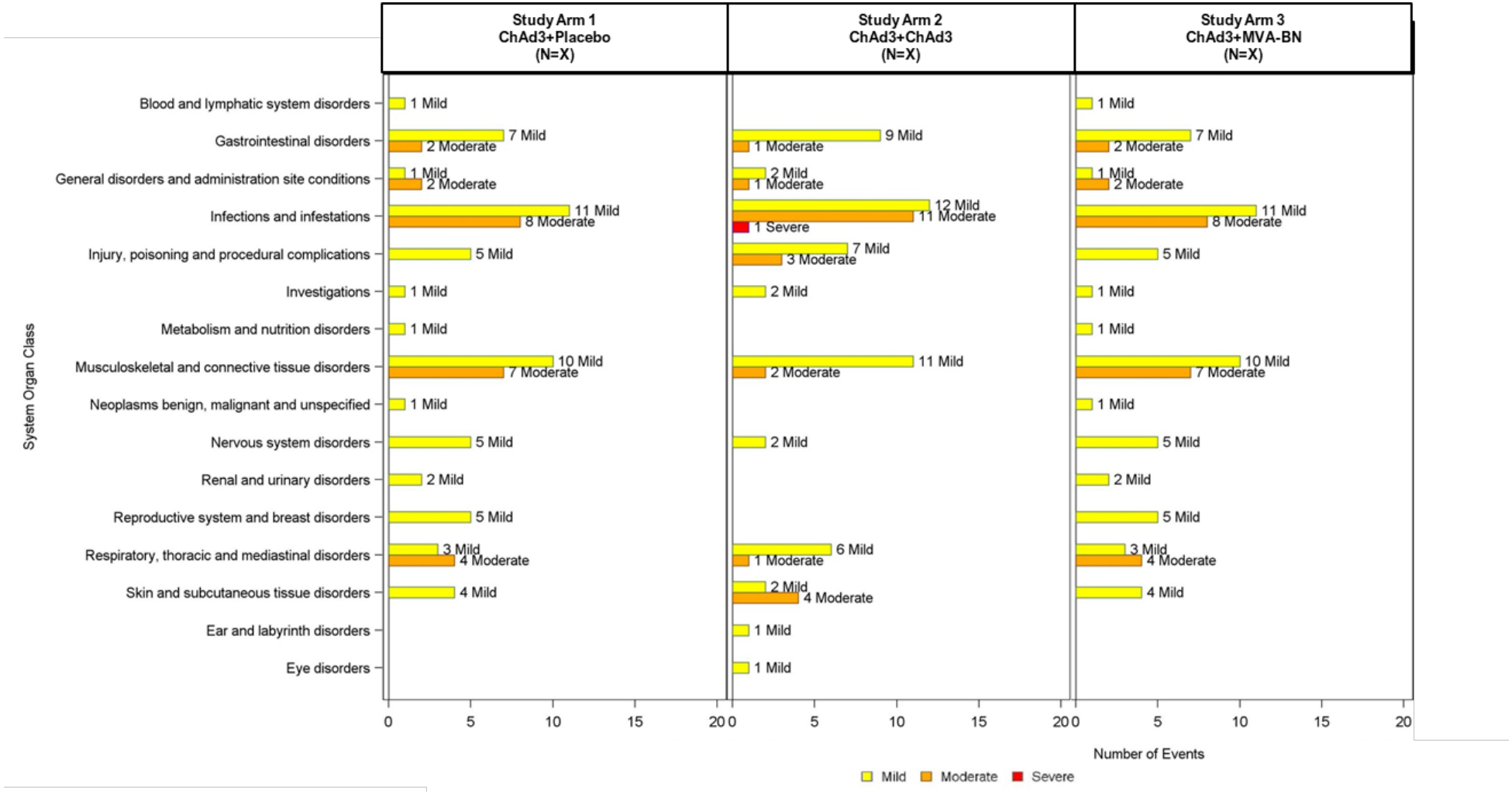


Figure 7: Frequency of Vaccine-related Adverse Events by Severity - Post-Any Vaccination

[Implementation Note: This figure includes serious and non-serious unsolicited adverse events. The x-axis should not include (%), as this is a count.]

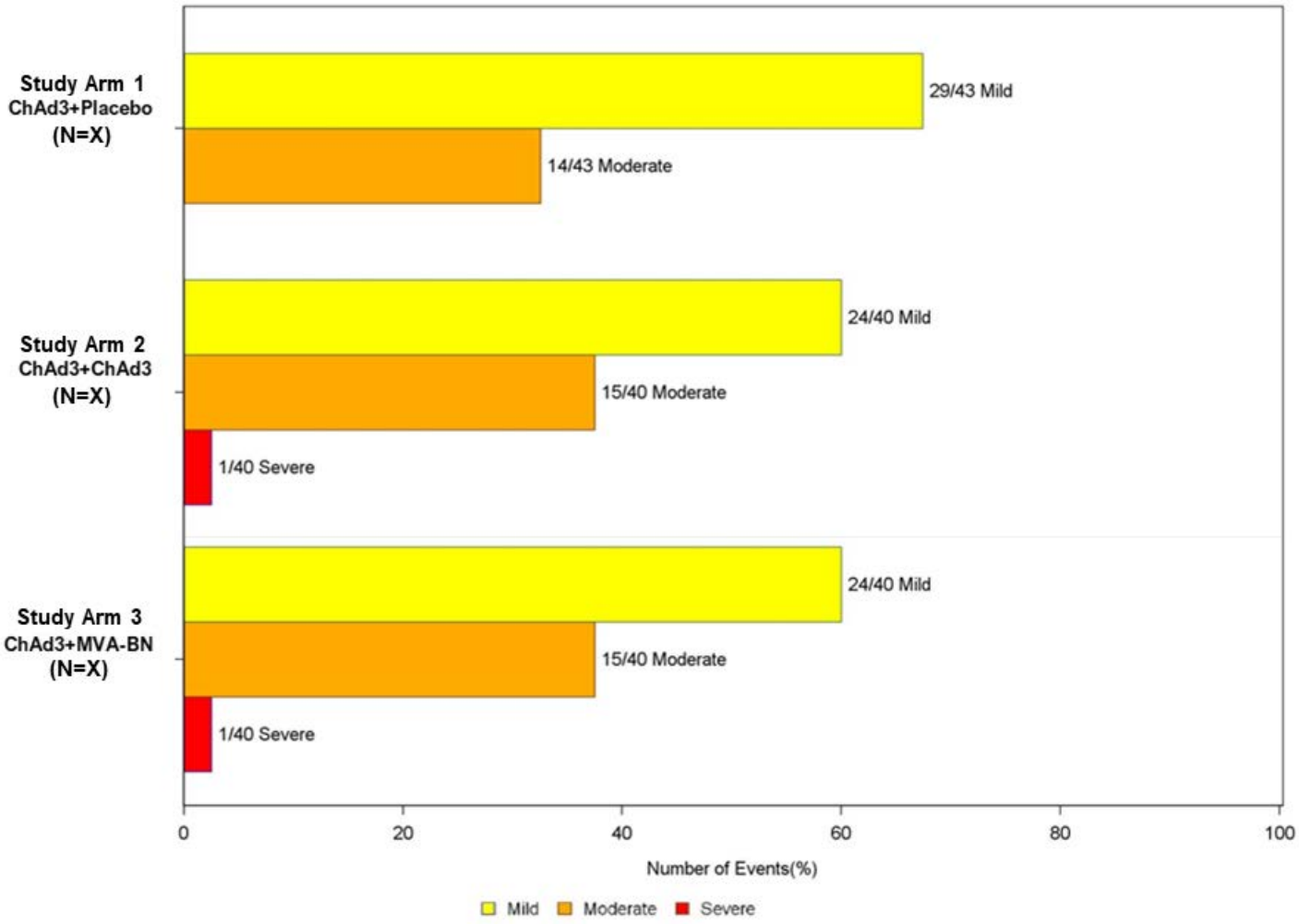


Figure 8: Incidence of Vaccine-related Adverse Events by Severity - Post-Any Vaccination

[Implementation Note: This figure includes serious and non-serious unsolicited adverse events.]

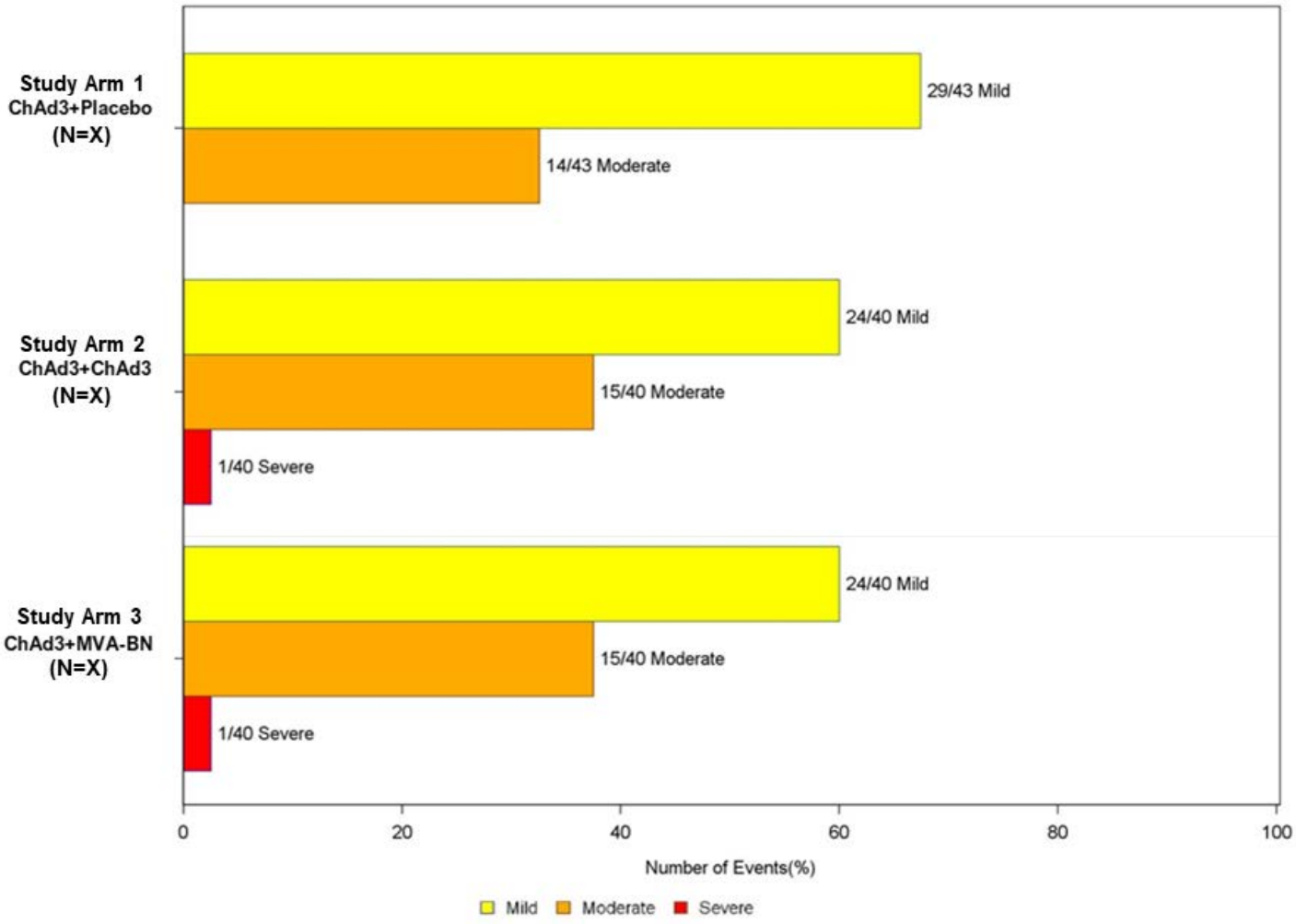


Figure 9: Frequency of Adverse Events by MedDRA System Organ Class and Relationship to Treatment - Post Any Vaccination

[Implementation Note: This figure includes all unsolicited adverse events.]

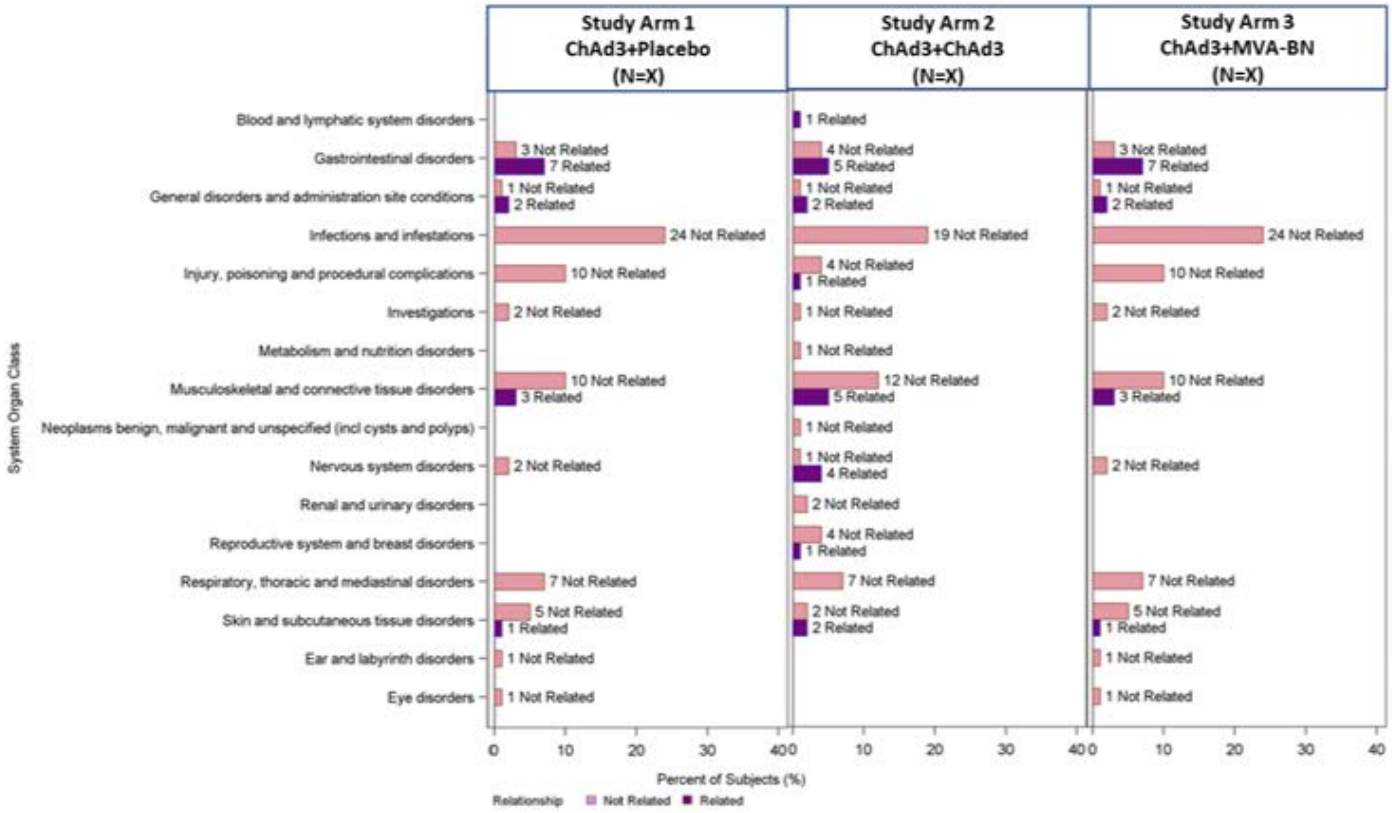


Figure 10: Incidence of Adverse Events by MedDRA System Organ Class and Relationship to Treatment - Post Any Vaccination

[Implementation Note: This figure includes all unsolicited adverse events.]

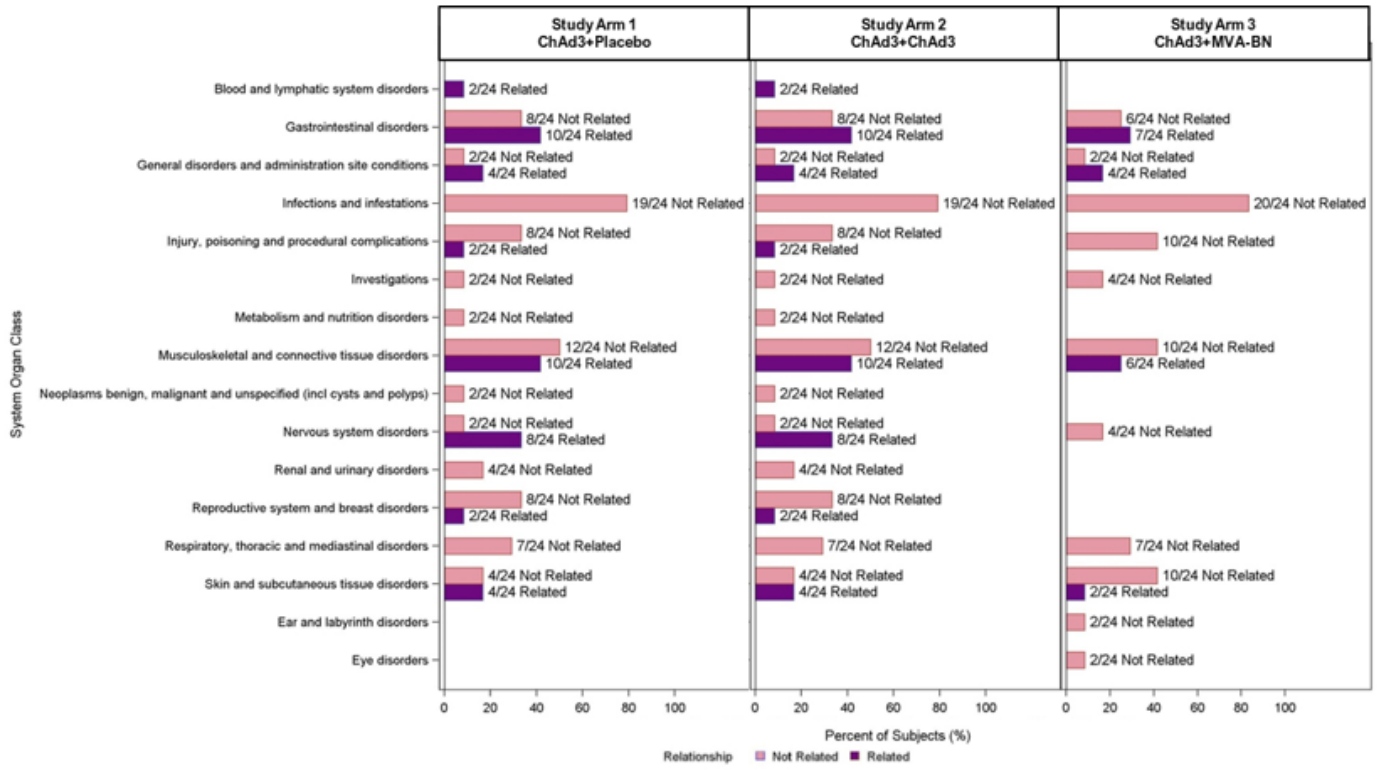


Figure 11: Frequency of Adverse Events by Relationship to Treatment - Post Any Vaccination

[Implementation Note: This figure includes all unsolicited adverse events.]

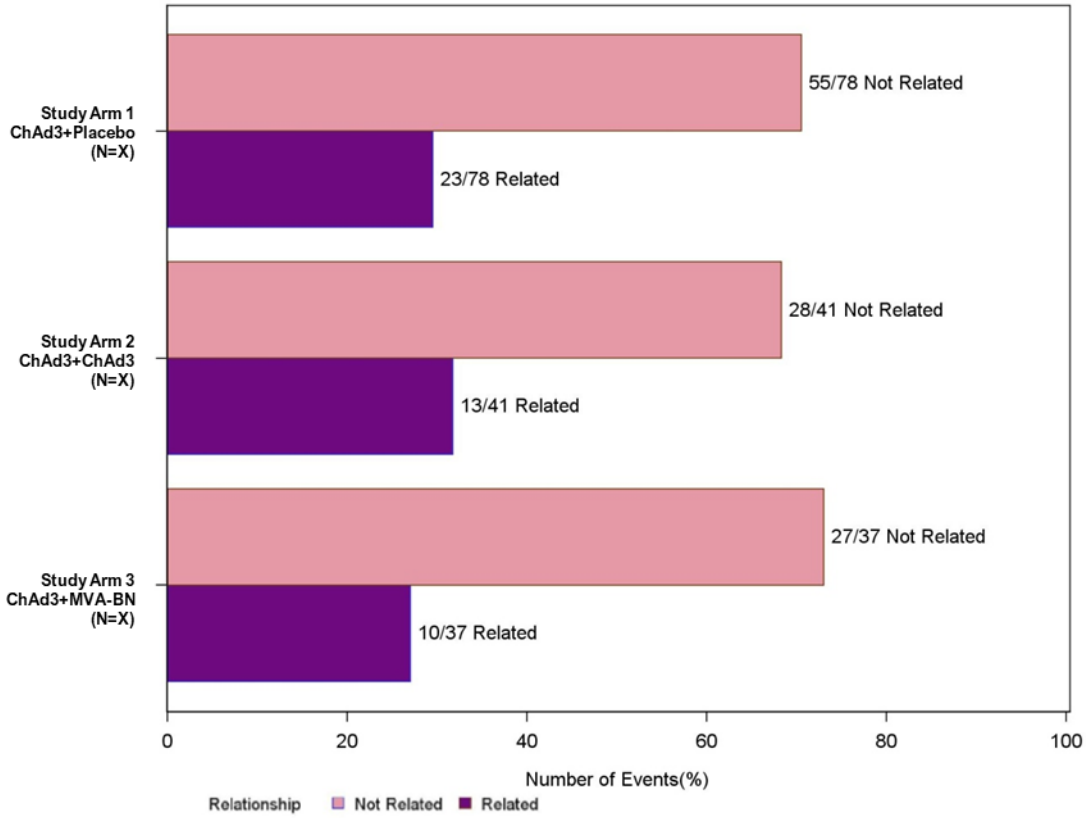
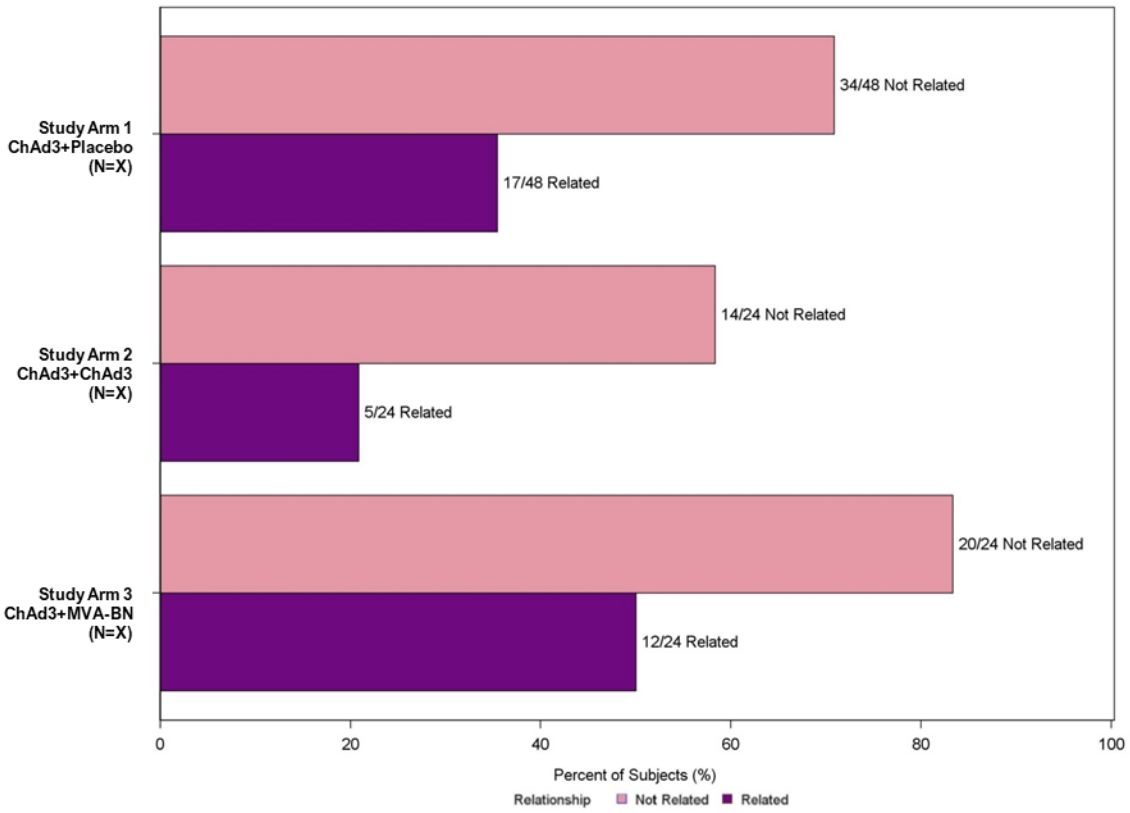
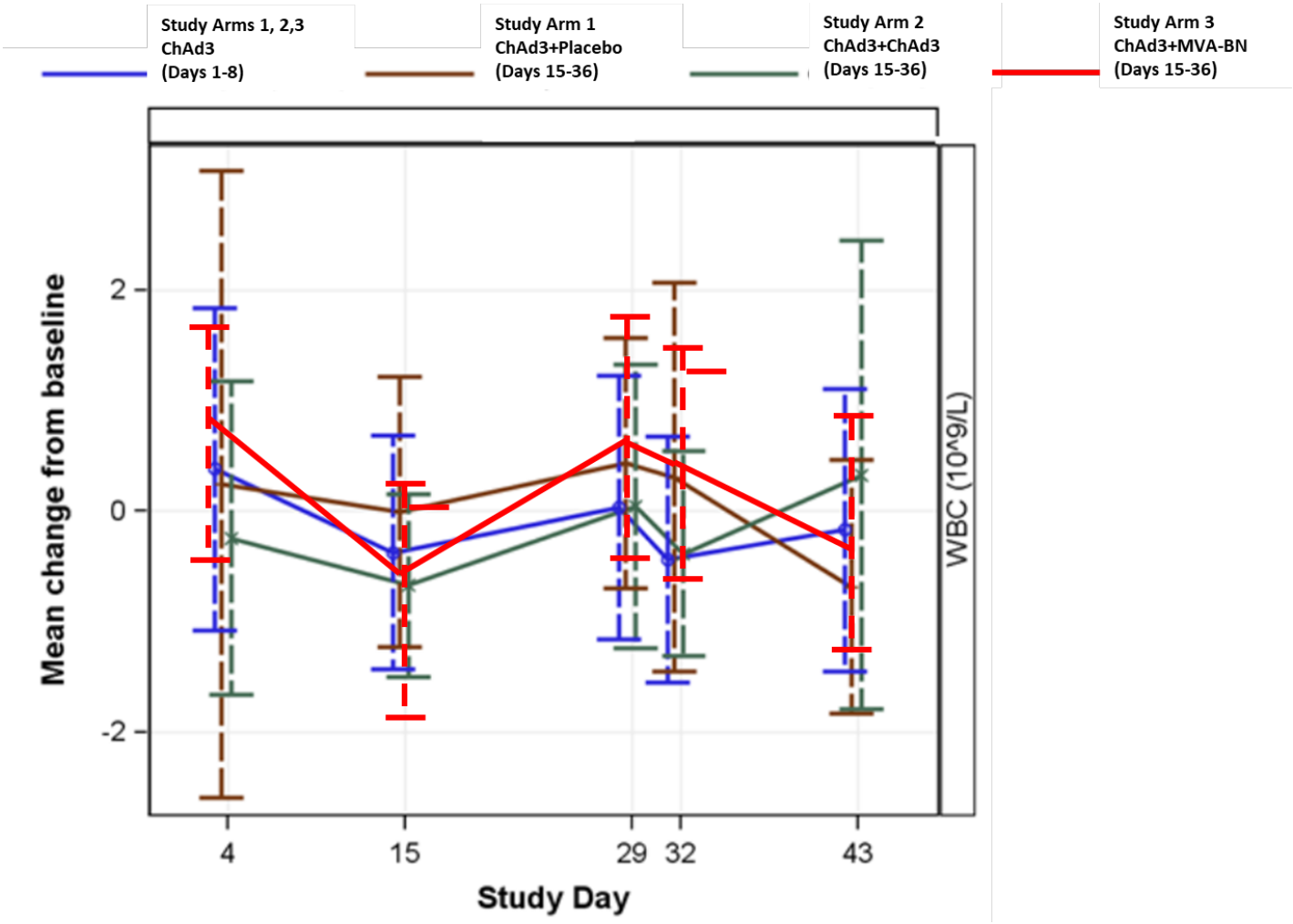


Figure 12: Incidence of Adverse Events by Relationship to Treatment - Post Any Vaccination



14.3.5 Displays of Laboratory Results

Figure 13: Safety Laboratory Mean Fold Change from Baseline by Treatment Group – Parameter X



Pre-second vaccination, present Study Arms 1, 2 and 3 as combined study arms.

Generate this figure for each hematology laboratory parameter: Absolute Neutrophil Count (K/mcL), Hgb (g/dL), Platelet count (K/mcL), WBC (K/mcL) and chemistry parameter: ALT (unit/L), BUN (mg/dL), Creatinine (mg/dL), Potassium (mmol/L), and Sodium, (mmol/L).

APPENDIX 3. LISTINGS MOCK-UPS

LISTINGS

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Listing 1: 16.1.6: Listing of Subjects Receiving Investigational Product

Not included in SAP, but this is a placeholder for the CSR. This will be included as an addendum to the primary CSR.

Listing 2: Early Terminations or Discontinued Subjects

Subject ID	Treatment Group	Category	Reason for Early Termination or Treatment Discontinuation	Study Day

Listing 3: Subject-Specific Protocol Deviations

Subject ID	Treatment Group	DV Number	Deviation	Deviation Category	Study Day	Reason for Deviation	Deviation Resulted in AE?	Deviation Resulted in Subject Termination?	Deviation Affected Product Stability?	Deviation Resolution	Comments

Listing 4: Non-Subject-Specific Protocol Deviations

Site	Deviation	Start Date	End Date	Reason for Deviation	Deviation Resulted in Subject Termination?	Deviation Affected Product Stability?	Deviation Category	Deviation Resolution	Comments

Listing 5: Subjects Excluded from Analysis Populations

Treatment Group	Subject ID	Analyses in which Subject is Included	Analyses time points from which Subject is Excluded	Results Available?	Reason Subject Excluded
		[e.g., Safety, ITT, PP]	[e.g., PP Day x, PP Day y]		

Note: "Yes" in the "Results available" column indicates that available data were removed from the analysis. "No" indicates that no data were available for inclusion in the analysis.

Listing 6: Demographic Data

Subject ID	Treatment Group	Sex	BMI	Age at Enrollment (years)	Ethnicity	Race

Listing 7: Pre-Existing Medical Conditions

Subject ID	Treatment Group	MH Number	Medical History Term	Condition Start Day	Condition End Day	MedDRA System Organ Class	MedDRA Preferred Term

Listing 8: Treatment Compliance

Treatment Group	Subject ID	Received Second Vaccination	Received Second Vaccination Out of Window
		[e.g. YES, NO]	[e.g. YES, NO]

Listing 9: Immunogenicity Response Data

Subject ID	Treatment Group	Planned Time Point	Actual Study Day	Anti-EBOV GP ELISA Titer	Anti-EBOV Neutralization Titer Achieving ≥50% Neutralization	Anti-EBOV Neutralization Titer Achieving ≥40% Neutralization

Listing 10: Solicited Events – Systemic Symptoms

Subject ID	Treatment Group	Dose Number	Post Dose Day	Assessment*	Symptom	Severity	Attributed to Alternate Etiology?**	Alternate Etiology
				MA				
				Clinic				

* MA = Data reported by subject on the Memory Aid and reviewed by clinic staff and reported in Solicited Events eCRF.
Clinic = Data collected by clinic staff during physical exam or symptom assessment (treatment administration record, in-clinic assessment, etc.)
**Grade 3 events only.

Listing 11: Solicited Events – Local Symptoms

Subject ID	Treatment Group	Dose Number	Post Dose Day	Assessment*	Symptom	Severity
				MA		
				Clinic		

* MA = Data reported by subject on the Memory Aid and reviewed by clinic staff and reported in Solicited Events eCRF.
Clinic = Data collected by clinic staff during physical exam or symptom assessment (treatment administration record, in-clinic assessment, etc.)

Listing 12: Unsolicited Adverse Events

Adverse Event	Associated with Dose #	# of Days Post Associated Dose (Duration)	Severity	SAE?	Relationship to Study Treatment	If Not Related, Alternative Etiology	Action Taken with Study Treatment	Subject Discontinued Due to AE	Outcome	MedDRA System Organ Class	MedDRA Preferred Term
Subject ID: , Treatment Group: , AE Number:											
Comments:											
Subject ID: , Treatment Group: , AE Number:											
Comments:											

Note: For additional details about SAEs, see Table: 28.

Listing 13: Clinical Laboratory Results – Hematology

Subject ID	Treatment Group	Sex	Age (years)	Planned Time Point	Actual Study Day	[Laboratory Parameter 1 (Units)]	[Laboratory Parameter 2 (Units)]	[Laboratory Parameter 3 (Units)]

Listing 14: Clinical Laboratory Results – Biochemistry

Subject ID	Treatment Group	Sex	Age (years)	Planned Time Point	Actual Study Day	[Laboratory Parameter 1 (Units)]	[Laboratory Parameter 2 (Units)]	[Laboratory Parameter 3 (Units)]

Listing 15: Vital Signs

Subject ID	Treatment Group	Planned Time Point	Actual Study Day	Temperature (°C)	Systolic Blood Pressure (mmHg)	Diastolic Blood Pressure (mmHg)	Heart Rate (beats/min)	Weight (kg)	Height (cm)

Listing 16: 16.2.9.2: Physical Exam Findings

Subject ID	Treatment Group	Planned Time Point	Actual Study Day	Body System	Abnormal Finding	Reported as an AE? (AE Description; Number)

Listing 17: 16.2.10: Concomitant Medications

Subject ID	Treatment Group	CM Number	Medication	Medication Start Day	Medication End Day	Indication	Taken for an AE? (AE Description; Number)	Taken for a condition on Medical History? (MH Description; Number)

Listing 18: 16.2.11: Pregnancy Reports – Maternal Information

Subject ID	Treatment Group	Pregnancy Number	Study Day Corresponding to Estimated Date of Conception	Source of Maternal Information	Pregnancy Status	Mother's Pre-Pregnancy BMI	Mother's Weight Gain During Pregnancy	Tobacco, Alcohol, or Drug Use During Pregnancy?	Medications During Pregnancy?	Maternal Complications During Pregnancy?	Maternal Complications During Labor, Delivery, or Post-Partum?

Note: Maternal Complications are included in the Adverse Event listing. Medications taken during pregnancy are included in the Concomitant Medications Listing.

Listing 19: 16.2.11.2: Pregnancy Reports – Gravida and Para

			Live Births												
Subject ID	Pregnancy Number	Gravida	Extremely Preterm Births	Very Preterm Births	Early Preterm Births	Late Preterm Births	Early Term Births	Full Term Births	Late Term Births	Post Term Births	Still Births	Spontaneous Abortion/ Miscarriage	Elective Abortions	Therapeutic Abortions	Major Congenital Anomaly with Previous Pregnancy?

Note: Gravida includes the current pregnancy, para events do not.

Listing 20: 16.2.11.3: Pregnancy Reports – Live Birth Outcomes

Subject ID	Pregnancy Number	Fetus Number	Pregnancy Outcome (for this Fetus)	Fetal Distress During Labor and Delivery?	Delivery Method	Gestational Age at Live Birth	Size for Gestational Age	Apgar Score, 1 minute	Apgar Score, 5 minutes	Cord pH	Congenital Anomalies?	Illnesses/ Hospitalizations within 1 Month of Birth?

Note: Congenital Anomalies are included in the Adverse Event listing.

Listing 21: 16.2.11.4: Pregnancy Reports – Still Birth Outcomes

Subject ID	Date of Initial Report	Fetus Number	Pregnancy Outcome (for this Fetus)	Fetal Distress During Labor and Delivery?	Delivery Method	Gestational Age at Still Birth	Size for Gestational Age	Cord pH	Congenital Anomalies?	Autopsy Performed?	If Autopsy, Etiology for Still Birth Identified?

Listing 22: 16.2.11.5: Pregnancy Reports – Spontaneous, Elective, or Therapeutic Abortion Outcomes

Subject ID	Date of Initial Report	Fetus Number	Pregnancy Outcome (for this Fetus)	Gestational Age at Termination	Abnormality in Product of Conception?	Reason for Therapeutic Abortion