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CLINICAL RESEARCH IN INFECTIOUS DISEASES

STATISTICAL ANALYSIS PLAN
for
DMID Protocol: 10-0069
Study Title:

**A Staged Phase I/II Study, to Assess Safety, Efficacy and Immunogenicity of
a New Hepatitis C Prophylactic Vaccine Based on Sequential Use of
AdCh3NSmut1 and MVA-NSmut**

NCT01436357

Version 2.0

DATE: 30-JUL-2018

THIS COMMUNICATION IS PRIVILEGED AND CONFIDENTIAL

Study Title

Protocol Number Code:	DMID Protocol: 10-0069
Development Phase:	Phase I/II
Products:	Two investigational vaccines administered sequentially as a prime and boost: AdCh3Nsmut1: 2.5×10^{10} viral particles MVA-NSmut: 1.8×10^8 pfu
Form/Route:	Intramuscular Injection (in the deltoid region of the arm)
Indication Studied:	Hepatitis C
Sponsor:	Division of Microbiology and Infectious Diseases National Institute of Allergy and Infectious Diseases National Institutes of Health
Clinical Trial Initiation Date:	January 19, 2012
Clinical Trial Completion Date:	May 25, 2018
Date of the Analysis Plan:	July 30, 2018
Version Number:	2.0

This study was performed in compliance with Good Clinical Practice.

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TABLE OF CONTENTS

TABLE OF CONTENTS.....	III
LIST OF ABBREVIATIONS.....	VI
1. PREFACE.....	1
2. INTRODUCTION.....	1
2.1. Purpose of the Analyses.....	1
3. STUDY OBJECTIVES AND ENDPOINTS.....	2
3.1. Study Objectives.....	2
3.2. Endpoints.....	2
3.3. Study Definitions and Derived Variables.....	3
3.3.1. Chronic HCV Infection.....	3
3.3.2. Persistent Viremia.....	3
3.3.3. Incident HCV Infection.....	4
3.3.4. Seroconversion.....	4
3.3.5. Duration of Incident Infection.....	4
3.3.6. Baseline Value.....	5
3.3.7. Sufficient Follow-up.....	5
4. INVESTIGATIONAL PLAN.....	6
4.1. Overall Study Design and Plan.....	6
4.2. Discussion of Study Design, Including the Choice of Control Groups.....	6
4.3. Selection of Study Population.....	7
4.3.1. Subject Inclusion Criteria.....	7
4.3.2. Subject Exclusion Criteria.....	7
4.4. Treatments.....	9
4.4.1. Treatments Administered.....	9
4.4.2. Method of Assigning Subjects to Treatment Groups (Randomization).....	10
4.4.3. Selection of Doses in the Study.....	10
4.4.4. Selection and Timing of Dose for Each Subject.....	10
4.4.5. Blinding.....	10
4.4.6. Prior and Concomitant Therapy.....	11
4.4.7. Treatment Compliance.....	11

4.5.	Efficacy, Immunogenicity, and Safety Variables	12
5.	SAMPLE SIZE CONSIDERATIONS	13
6.	GENERAL STATISTICAL CONSIDERATIONS.....	14
6.1.	General Principles.....	14
6.1.1.	Pseudo Code	14
6.2.	Timing of Analyses.....	15
6.3.	Analysis Populations	15
6.3.1.	Safety Population.....	15
6.3.2.	Modified Intention-to-Treat (mITT) Population	15
6.3.3.	According to Protocol Population	16
6.3.4.	Immunogenicity Population.....	16
6.4.	Covariates and Subgroups	16
6.5.	Missing Data	16
6.6.	Interim Analyses and Data Monitoring	17
6.7.	Multicenter Studies	17
6.8.	Multiple Comparisons/Multiplicity	17
7.	STUDY SUBJECTS.....	18
7.1.	Disposition of Subjects	18
7.2.	Protocol Deviations	18
8.	EFFICACY EVALUATION	19
8.1.	Primary Efficacy Analysis.....	19
8.2.	Secondary Efficacy Analyses	21
8.3.	Exploratory Efficacy Analyses	21
9.	SAFETY EVALUATION	25
9.1.	Demographic and Other Baseline Characteristics	25
9.1.1.	Prior and Concurrent Medical Conditions.....	25
9.2.	Measurements of Treatment Compliance.....	25
9.3.	Adverse Events	25
9.3.1.	Solicited Events and Symptoms	25
9.3.2.	Unsolicited Adverse Events.....	26
9.4.	Deaths, Serious Adverse Events and other Significant Adverse Events	27
9.5.	Pregnancies	28
9.6.	Clinical Laboratory Evaluations	28

9.7.	Vital Signs and Physical Evaluations	29
9.8.	Concomitant Medications	29
10.	IMMUNOGENICITY	30
11.	OTHER ANALYSES	32
12.	REPORTING CONVENTIONS	34
13.	TECHNICAL DETAILS	35
14.	SUMMARY OF CHANGES IN THE CONDUCT OF THE STUDY OR PLANNED ANALYSES.....	36
15.	REFERENCES	37
16.	LISTING OF TABLES, FIGURES, AND LISTINGS	38
	APPENDICES	39
	APPENDIX 1. TABLE MOCK-UPS.....	40
	Section 9.1 Overall Study Design and Plan Description	48
	Section 9.5.1 Efficacy/Immunogenicity and Safety Measurements Assessed and Flow Chart	48
	Section 14.3.5 Displays of Laboratory Results.....	111
	Section 14.3 Immunogenicity Data.....	132
	Section 12.4.1 Individual Laboratory Measurements and Abnormal Laboratory Values	136
	APPENDIX 2. FIGURE MOCK-UPS	139
	APPENDIX 3. LISTINGS MOCK-UPS.....	161

LIST OF ABBREVIATIONS

AE	Adverse Event
ATC	Anatomical codes
ATP	According to Protocol
BP	Blood Pressure
BMI	Body Mass Index
CI	Confidence Interval
CRF	Case Report Form
CSR	Clinical Study Report
dL	Deciliter
DMID	Division of Microbiology and Infectious Diseases
DSMB	Data and Safety Monitoring Board
EDC	Electronic Data Capture
ELISpot	Enzyme-Linked ImmunoSpot
ERC	Endpoint Review Committee
FDA	Food and Drug Administration
GMT	Geometric Mean Titer
GMP	Good Manufacturing Practice
GMFR	Geometric Mean Fold Rise
HCV	Hepatitis C Virus
HGB	Hemoglobin
HIV	Human Immunodeficiency Virus
HIVNET	Human Immunodeficiency Virus Network of Prevention Trials
ICH	International Conference on Harmonisation
IDU	Injection Drug User
IFN- γ	Type II Interferon
ISM	Independent Safety Monitor
IU	International Units
L	Liter
LLN	Lower Limit of Normal
mcg	Microgram

MedDRA	Medical Dictionary for Regulatory Activities
mg	Milligram
mITT	Modified Intention to Treat
mL	Milliliter
mm	Millimeter
MSM	Male who has sex with men
Mut	Mutation
MVA	Modified Vaccinia virus Ankara
N	Number (typically refers to subjects)
NaCl	Sodium Chloride
NIH	National Institutes of Health
NS	Nonstructural region
PBMC	Peripheral blood mononuclear cells
PCR	Polymerase chain reaction
pfu	plaque-forming unit
PT	Preferred Term
RBC	Red Blood Cell
RBV	Ribavirin
RNA	Ribonucleic Acid
SAE	Serious Adverse Event
SAP	Statistical Analysis Plan
SD	Standard Deviation
SDCC	Statistical and Data Coordinating Center
SOC	System Organ Class
U	Units
ULN	Upper Limit of Normal
WBC	White Blood Cell
WHO	World Health Organization

1. PREFACE

The Statistical Analysis Plan (SAP) for “A Staged Phase I/II Study, to Assess Safety, Efficacy and Immunogenicity of a New Hepatitis C Prophylactic Vaccine Based on Sequential Use of AdCh3NSmut1 and MVA-NSmut” (Division of Microbiology and Infectious Diseases (DMID) Protocol 10-0069) describes and expands upon the statistical information presented in the protocol.

This document describes all final analyses and provides reasons and justifications for these analyses. It also includes sample tables, listings, and figures planned for the final analyses. Regarding the final analyses and Clinical Study Report (CSR), this SAP follows 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), and more generally is consistent with 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 Food and Drug Administration (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) comprehensive statistical analysis methods for efficacy and safety outcomes, and (4) a list of proposed tables, figures, and listings. Any deviation from this SAP will be described and justified in the CSR. The reader of this SAP is encouraged to also review the study protocol for details on conduct of the study and the operational aspects of clinical assessments.

2. INTRODUCTION

Hepatitis C Virus (HCV) is the world's most common blood borne viral infection for which there is no vaccine. The World Health Organization (WHO) estimates that about 180 million people, some 3% of the world's population, have been infected, 130 million of whom are chronic HCV carriers [1,2].

At the time of the initiation of the trial, the standard of care for patients with chronic HCV infection consists of the combination of pegylated interferon α (IFN) and ribavirin (RBV) [3, 4]. Therapy achieves sustained viral clearance in no more than ~40-50% of patients infected with the most common genotype of HCV. More than 20% of the IFN treated patients develop significant adverse effects and RBV frequently causes haemolytic anemia. Current treatment regimens are considered inadequate due to limited efficacy and toxicity resulting in poor tolerability. The various HCV genotypes respond differently to the treatment. Genotype 1 infections are more resistant to IFN therapy than infections with virus of genotypes 2 and 3. Novel therapies based on antiviral drugs that specifically target HCV protease are currently approved for clinical use in combination with IFN and RBV. Recent clinical trials showed an increase in the number of genotype 1 infected individuals responding to the triple antiviral treatment (IFN/RBV and protease inhibitor) [5, 6]. These new treatments, however, are associated with the rapid emergence of viral escape variants [7]. Furthermore, many patients are not eligible for therapy because of co-morbid medical or psychiatric conditions or severe liver disease [8, 9]. For these reasons, as well as for the cost of the combined standard therapy, it is widely believed that HCV therapy will not have a significant impact on the disease in many parts of the world and will have a minimal impact in blocking the spread of infection within the human population.

A significant epidemiologic impact on the spread of HCV infection is expected to occur only subsequent to the introduction of an effective vaccine. A vaccine is needed to reduce HCV disease especially for groups at high risk of infection. Injection drug users (IDUs) have the highest prevalence of any population, ranging from 25% to 80%, and an incidence rate of new infections ranging from 10% to 30% (annualized rate) [10, 11].

This phase I/II study will assess the safety of new candidate hepatitis C virus vaccines, AdCh3NSmut1 and MVA-NSmut, compared to placebo when administered sequentially to IDUs and will determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce incidence of chronic HCV infection compared to placebo among HCV-uninfected IDUs.

2.1. Purpose of the Analyses

The final analyses contained in this Statistical Analysis Plan will assess the safety, efficacy, and immunogenicity of the new candidate hepatitis C virus vaccines, AdCh3NSmut1 and MVA-NSmut, in comparison with placebo and will be included in the clinical study report.

The protocol for DMID 10-0069 called for two planned interim analyses. The first interim analysis took place when study Day 63 (approximately week 9) follow-up data was available on the last of approximately 68 subjects enrolled in Stage 1 of the trial. The second interim analysis occurred when roughly one-third of enrolled and currently per-protocol subjects (N = 98) completed six months of post-vaccination follow-up. At the second interim analysis, the DSMB did a blinded examination of progress towards the statistical information goal of 43 cases of chronic HCV in the per protocol analysis cohort for the efficacy endpoint of prevention of chronic HCV. The tables, figures, and listings for the interim analyses are contained in the Data Safety Monitoring Board (DSMB) Interim Analysis Reports, Safety Summary Reports, and Endpoint Assessment Reports which had their own separate analysis plans.

3. STUDY OBJECTIVES AND ENDPOINTS

3.1. Study Objectives

The primary safety objective is:

1. To assess the safety of new candidate hepatitis C virus vaccines, AdCh3NSmut1 and MVA-NSmut, compared to placebo when administered sequentially to IDUs.

The primary efficacy objective is:

1. To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce incidence of chronic HCV infection compared to placebo among HCV-uninfected IDUs

The secondary immunogenicity objective is:

1. To evaluate the immunogenicity of the new candidate hepatitis C virus vaccines, AdCh3NSmut1 and MVA-NSmut, compared to placebo when administered to HCV-uninfected IDUs.

The exploratory efficacy objectives are:

1. To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce incidence of incident HCV infection compared to placebo among HCV-uninfected IDU.
2. To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce 9-month incidence of chronic HCV infection compared to placebo among HCV-uninfected IDU.
3. To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce peak concentration (magnitude) of HCV RNA compared to placebo, in blood samples of persons with incident HCV infection.
4. To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce duration of HCV viremia (shorter time to spontaneous resolution) during incident infection (6-month period following incident HCV infection) compared to placebo in blood samples of persons with incident HCV infection.
5. To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce incidence of chronic HCV infection with genotype 1 compared to non-genotype 1 among HCV-uninfected IDU.

3.2. Endpoints

The primary safety endpoints are as follows:

1. Occurrence of vaccine-related serious adverse events (SAEs) from the time of first vaccination through the entire study period.
2. Occurrence of severe local and/or systemic solicited reactogenicity signs and symptoms in the 8 days (Day 0-7) after each vaccination.
3. Occurrence of clinical safety laboratory adverse events (AEs) assessed at baseline and 1 month following each vaccination.

The occurrence of these safety parameters will be assessed by treatment group (vaccine and placebo).

The primary efficacy endpoint is:

1. Chronic HCV infection at 6 months defined by persistent viremia over a period of 6 months after detection of incident infection.

The secondary immunogenicity endpoint is:

1. The frequency of positive cell mediated immune response within 14 days after the last vaccination by treatment group (vaccine vs. placebo)

The exploratory efficacy endpoints are as follows:

1. An incident HCV infection will be defined as a new confirmed positive HCV RNA test after a previous negative HCV RNA test. The interval during which incident HCV infection occurs will be defined by the date of the last documented negative HCV RNA results, and the date of the first positive HCV RNA result.
2. Chronic HCV infection at 9 months defined by persistent viremia over a period of 9 months after detection of incident infection.
3. Quantitative viremia measures, including the incident peak and total HCV RNA levels detected, from the date of first HCV RNA detection and at study visits in the first 6 months of viremia will be compared, between vaccinated and placebo groups, using logarithmic IU/mL values.
4. The duration of incident infection will be defined as the interval between incident HCV infection and viral clearance. For subjects who do not clear HCV viremia, the duration will be measured as six months following incident infection. The interval during which incident HCV infection occurs will be defined by the date of the last documented HCV RNA negative results, and the date of the first positive HCV RNA result. The interval during which viral clearance occurs will be defined by the date of the last test with detectable HCV RNA and the first of two consecutive samples with undetectable HCV RNA.
5. A chronic HCV infection genotype 1 will be defined as a chronic HCV infection at 6 months, as defined in Section 3.1.2, with the additional requirement that the infection is genotype 1 as determined from blood samples obtained at the first HCV viremic visit, provided sufficient sample is available.

3.3. Study Definitions and Derived Variables

3.3.1. Chronic HCV Infection

For the primary efficacy endpoint, chronic HCV infection is defined as persistent viremia over a period of 6 months after detection of incident infection. For exploratory endpoint 2, chronic HCV infection is defined as persistent viremia over a period of 9 months after detection of incident infection.

3.3.2. Persistent Viremia

For the primary efficacy endpoint, persistent viremia is defined as:

1. The presence of the same virus (as confirmed by HCV core-E1 phylogenetic analysis testing) in blood samples collected at the first visit where HCV RNA is detected (incident infection) provided sufficient sample is available, and a subsequent sample collected at month 6 (not less than 159 or more than 201 days following incident infection); and

2. A third HCV RNA positive sample taken at a time point in between these two samples (incident and month 6).

Note: If there are two or more samples within the 159 to 201 day window for the month 6 collection, the test result from the collection date closest to 180 days after incident infection will be used.

For exploratory endpoint 2, persistent viremia is defined as:

1. The presence of the same virus (as confirmed by HCV core-E1 phylogenetic analysis testing) in blood samples collected at the first visit where HCV RNA is detected (incident infection) provided sufficient sample is available, and a subsequent sample collected at month 9 (not less than 249 or more than 291 days following incident infection); and
2. A third HCV RNA positive sample taken at a time point in between these two samples (incident and month 9).

Note: If there are two or more samples within the 249 to 291 day window for the month 9 collection, the test result from the collection date closest to 270 days after incident infection will be used.

In the scenario in which HCV core-E1 phylogenetic analysis testing cannot be performed on the blood samples collected at the incident infection (e.g. due to low viral load or low amount of sample), HCV core-E1 phylogenetic analysis testing may be performed on a sample from a supplemental visit or the first H-series visit. The earliest observed result among these timepoints will be used to identify the virus at the incident infection.

3.3.3. Incident HCV Infection

Detection of incident HCV infection will be defined as the occurrence of a new confirmed positive HCV RNA test after previous negative HCV RNA test(s). The infection date will be defined as the midpoint of the interval between the date of the last negative HCV RNA and the date of the first positive HCV RNA test result.

A secondary definition of detection of incident HCV infection will also be explored which utilizes the anti-HCV testing results. Detection of incident HCV infection will be defined by the detection of infection-induced antibodies to HCV core antigens not present in the vaccine construct. The testing provides the ability to differentiate infection- from vaccine-induced seroconversion. The incident HCV infection date will be defined by results from anti-HCV testing conducted on stored blood samples tested retrospectively (with or without a corresponding HCV RNA result), and seroconversion date (defined in Section 3.3.4) will be used as the infection date.

3.3.4. Seroconversion

Seroconversion is detected when a subject develops a positive anti-HCV antibody test with infection-induced antibodies to HCV core antigens not present in the vaccine construct after previous negative anti-HCV antibody test(s). The seroconversion date will be defined as the midpoint of the interval between the date of the last negative anti-HCV and the date of the first positive anti-HCV test result.

3.3.5. Duration of Incident Infection

The duration of incident infection will be defined as the midpoint of the interval between incident HCV infection and viral clearance. The incident HCV infection date will be defined as the midpoint of the interval between the date of the last documented HCV RNA negative result and the date of the first positive HCV RNA result. The viral clearance date will be defined as the midpoint of the interval between the date of the

last test with detectable HCV RNA and the first of two consecutive samples with undetectable HCV RNA. For subjects who do not clear HCV viremia, the duration will be measured as six months following incident infection for the fourth exploratory endpoint.

3.3.6. Baseline Value

The baseline value will be defined as the last value obtained prior to the first vaccination.

3.3.7. Sufficient Follow-up

Sufficient follow-up will consist of at least three clinic visits following the second vaccination. If the second dose of vaccine was not administered, the target date for the second dose will be used in this calculation. Subjects who receive treatment for incident HCV infection will be censored in time to event analyses of chronic infection at the date of first treatment.

4. INVESTIGATIONAL PLAN

4.1. Overall Study Design and Plan

DMID 10-0069 is a Phase I/II double-blind (subject, investigator, and clinical personnel monitoring safety and laboratory assay results, and laboratory personnel), randomized, and placebo-controlled study in approximately 540 individuals at high risk for HCV infection due to active injection drug use (IDU) between the ages of 18 and 45. HCV-uninfected (negative for both anti-HCV and HCV RNA at screening) male and female adults who are current IDUs will be randomized at a 1:1 ratio, stratified by gender and IL28B status, to receive AdCh3NSmut1 and MVA-NSmut HCV vaccines or placebo at Day 0 and Day 56. The study is designed to be implemented in two stages and enroll a total of 270 subjects/group.

Stage 1: Blinded, randomized, controlled assessment of AdCh3NSmut1 and MVA-NSmut HCV vaccine compared to placebo in 68±4 (34±2/group) evaluable subjects. This study stage will evaluate safety of the combined use of both vectors in a prime/boost regimen in the target population. Each individual will be followed with extensive safety and immunogenicity measures. Interim analysis (safety and immune responses) is planned immediately following the end of stage 1 (at Day 63 follow-up (34±2/group) for all evaluable subjects).

Stage 2: After the safety and immunogenicity interim analyses, the study will be extended into a 2nd stage, wherein an additional (n=472±4) HCV-uninfected subjects will be enrolled. A 2nd interim analysis to evaluate progress (statistical and enrollment) toward the efficacy endpoint will occur when roughly one-third of enrolled and currently per-protocol subjects (N = 98) have completed six months of post-vaccination follow-up, but no later than one month prior to the planned completion of enrollment to the trial. Immune responses will be evaluated following each vaccination and HCV viremia status will be monitored monthly for 18 months following the 2nd vaccination. This stage is designed as a blinded, randomized placebo-controlled study, with safety and efficacy assessments.

The planned duration of the study is approximately 63 months total including accrual time for subjects (assuming 31 months of screening/enrollments, plus 3 months of halted enrollment for the first interim analysis), 2 months vaccination, 18 months follow-up of each enrolled subject, and 9 months extended observation (monthly), from the time of infection, for subjects becoming viremic in the last month of follow-up.

The follow-up period for detection of HCV infection will start after the second injection of vaccine and will last 18 months. Subjects who become viremic will be followed for 9 months after detection of HCV (up to month 29). The trial will be considered closed when the observation period for the last subject that became viremic during the 18 months follow-up is completed. A schematic of the general design is provided in [Figure 1](#). [Table 1](#) and [Table 2](#) presents the schedule of events for each visit for subjects with and without confirmed HCV infection.

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

The choice of the intramuscular route for AdCh3 is based on the assumption that no co-infection of natural human Adenovirus could occur at this site. Furthermore, there is a large body of data from clinical trials in humans using replication defective Ad5- and Ad6-based HIV vaccines injected intramuscularly showing an excellent safety profile, no viral shedding, and high levels of immunogenicity. MVA-NSmut will also be given by the intramuscular route because it is better tolerated than when administered by subcutaneous route. The vaccine schedule will consist of a single priming injection with AdCh3NSmut1, followed by a single boost with MVA-NSmut 56 days later in a heterologous prime/boost regimen. This is based on promising data

from ongoing malaria clinical trials in Oxford, where optimal immunogenicity is achieved with an 8 week interval between vectors and from pre-clinical data shown in the previous section. The choice of placebo for the comparator is due to the non-existence of a HCV vaccine.

4.3. Selection of Study Population

4.3.1. Subject Inclusion Criteria

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

1. Comprehension of informed consent.
2. 18-45 year old men or women with acknowledged active IDU in the past 90 days and have no travel plans that would interfere with ability to meet the study visit schedule.
3. In good general health as determined by a participating study physician and results within acceptable ranges for clinical laboratory evaluations as detailed in Appendix A.
4. Negative for antibodies to hepatitis C virus (anti-HCV).
5. Negative for HCV RNA.
6. Negative antibodies to HIV.
7. Negative for HBsAg.
8. Able and willing (in the Investigator's opinion) to comply with all study requirements.
9. Willing to allow the investigators access to their medical records.
10. Willingness to practice continuous effective contraception from the screening visit through 90 days after the last vaccination (males and females).
11. Among females, a negative pregnancy test within 24 hours prior to vaccination.
12. Agreement to refrain from blood donation during the course of the study or after the study.
13. Provide written informed consent prior to initiation of any study procedures.
14. Willing to provide contact information for study follow-up activities, including the address, name and contact information of three people who can be contacted to facilitate follow-up compliance.

4.3.2. Subject Exclusion Criteria

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

1. The subject is currently participating in a study that involves an experimental agent (vaccine, drug, biologic device, blood product, or medication) or has received an experimental agent within 30 days prior to enrollment in this study, or expects to receive another experimental agent during participation in this study.
2. Prior receipt of a recombinant simian or human adenoviral vaccine or MVA vaccine.
3. Administration of immunoglobulins and/or any blood products within the 90 days preceding the planned administration of the vaccine candidate.

4. Any confirmed or suspected immunosuppressive or immunodeficient state, including: HIV infection; asplenia; recurrent, severe infections.
5. History of allergic disease or reactions likely to be exacerbated by any component of the vaccine (i.e., known hypersensitivity to aminoglycoside antibiotics or to egg proteins).
6. History of clinically significant contact dermatitis or other significant dermatological conditions such as psoriasis.
7. Any history of anaphylaxis in reaction to vaccination.
8. Pregnancy, lactation or willingness/intention to become pregnant during the study.
9. History of cancer (except for successfully treated basal cell carcinoma of the skin and cervical carcinoma in situ).
10. History of severe psychiatric illness, including severe depression, history of suicidal ideation, suicidal attempts, or psychosis requiring medication. The subject has a diagnosis of schizophrenia, bi-polar disease, or other severe (disabling) chronic psychiatric diagnosis that is uncontrolled and would interfere with the ability to adhere to the protocol.
11. Any other serious chronic illness requiring hospital specialist supervision.
12. Suspected or known current alcohol abuse as defined by a score of 10 or more on the Alcohol Use Disorders Identification Test (AUDIT) C test (a standardized screening tool used to identify hazardous drinkers or those with active alcohol use disorders, including abuse or dependence).
13. At high risk of HIV infection by the following criteria (adapted from HIV Network for Prevention Trials (HIVNET) behavioral criteria for high risk of HIV): (1) sexually active male who has sex with men (MSM), defined as (i) male who has had anal sex with male sexual partner or partners in the past year or (ii) a male who exchanged sex with male partner(s) for money or drugs in the past year; and (2) female and in a current relationship with a high risk male (active MSM, HIV positive male).
14. Any other significant disease, disorder or finding, which, in the opinion of the Investigator, may put the subject at risk because of participation in the study, may influence the result of the study, or may influence the subject's ability to participate in the study.
15. History of or current diagnosis of Diabetes mellitus.
16. History of or current diagnosis of autoimmune disease.
17. History of or current cardiac disease including history of myocardial infarction or arrhythmia.
18. Current diagnosis of active liver disease.
19. History of seizure disorder or currently taking anti-convulsant therapy that would interfere with safety evaluation.
20. Uncontrolled hypertension (defined as systolic blood pressure being greater than 140mm Hg or diastolic blood pressure being greater than 90mm Hg).
21. History of splenectomy.
22. Long term immunosuppressive use (defined as taken for 14 days or more in total at any time during the past 180 days) of high dose oral or parenteral glucocorticoids (high dose defined as prednisone \geq 20 mg total daily dose, or equivalent dose of other glucocorticoids); or high-dose inhaled steroids

(high dose defined as >800 mcg/day of beclomethasone dipropionate or equivalent); or any use of hepatotoxic or non-FDA approved medication.

23. Have an acute illness, including an oral temperature greater than or equal to 100.4°F, within 7 days prior to the first vaccination.
24. Immunization against another pathogen within 14 days of planned injection.

The following events associated with vaccine immunization constitute absolute contraindications to further administration of vaccine. The subject will not receive additional vaccination, but will continue with scheduled follow-up procedures except vaccination.

1. Anaphylactic reaction following administration of vaccine.
2. Pregnancy. If a woman reports having a positive home urine pregnancy test or a positive in clinic urine pregnancy test prior to a scheduled second vaccination, she is not eligible to receive the study vaccine. If she later returns to clinic and reports having a negative home urine pregnancy test and this is confirmed by a negative in clinic urine pregnancy test and a negative blood pregnancy test she may be eligible for the second vaccination if she is still within the vaccination window and no other exclusion criteria are met.

The following adverse events constitute contraindications to administration of vaccine at that point in time. If any one of these adverse events occurs at the time scheduled for vaccination, the subject may be vaccinated at a later date (within 28 days of scheduled administration) or withdrawn at the discretion of the investigator. The subject will not receive additional vaccination, but will continue with all scheduled follow-up procedures except vaccination.

1. Acute disease at the time of vaccination (acute disease is defined as the presence of a moderate or severe illness with or without fever). The vaccine dose can be administered to persons with a minor illness such as diarrhea, mild upper respiratory infection with or without low-grade febrile illness, i.e., temperature of <38°C (100.4°F).
2. Temperature of >38°C (100.4°F) at the time of vaccination.
3. Immunization against another pathogen within 14 days of vaccination.

If a subject is withdrawn from the study, all study procedures (except for another vaccination) including safety follow-up will be continued, if possible. If voluntary withdrawal occurs, the subject will be asked to continue scheduled study procedures (except for another vaccination) including safety evaluations, if possible, and be given appropriate care under medical supervision if symptoms of any AE related to participation in the study are continuing. The subject will be followed until the AE is resolved or until the subject's condition becomes stable. (Note: These plans regarding follow-up only apply if the subject received at least one study dose.) Any subject whose vaccinations have been discontinued will be seen for appropriate follow-up visits or medical care will be arranged until the adverse event has resolved or stabilized.

4.4. Treatments

4.4.1. Treatments Administered

Two investigational vaccines will be used in this study, namely AdCh3NSmut1 and MVA-NSmut, along with the 0.9% sodium chloride as placebo.

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

Enrollment of subjects is done online using the enrollment module of the EDC, maintained by the SDCC. Eligible subjects are randomized and assigned in a 1:1 ratio stratified by site, gender, and IL28B status, to receive AdCh3NSmut1 and MVA-NSmut HCV vaccines or placebo at Day 0 and Day 56 after providing consent and confirmation of eligibility with the study inclusion and exclusion criteria.

4.4.3. Selection of Doses in the Study

Vaccine Doses: In this study AdCh3NSmut1 vaccine will be administered at 2.5×10^{10} vp, and MVA-NSmut at 1.8×10^8 pfu.

AdCh3NSmut1: Clinical data are not available for the AdCh3NSmut1 vector. AdCh3NSmut1 has minimal changes from AdCh3NSmut vector used in the Okairos' 3 on-going clinical trials with NSmut Antigen HCV Vaccine. Pre-clinical assessment has shown that these changes do not affect the safety or immunogenicity profile. Safety data from the study HCV001 and the ongoing HCV003 have shown that AdCh3NSmut is safe and well tolerated in healthy subjects at the dosage (2.5×10^{10} vp) selected for this study.

Phase I studies assessing safety and immunogenicity in healthy individuals of Ad5- and Ad6-based HIV vaccine candidates were shown to induce higher rates of responses and more potent responses when they were administered at 10^{10} vp/dose versus 10^9 vp/dose. Similarly, there was a greater frequency of detectable cellular responses after 6 months from the first administration of the vector in the higher dose groups (between 10^{10} and 10^{11} vp/dose). These studies have shown that adenoviral vectors are safe and well tolerated up to 10^{11} vp/dose with some more reactogenicity associated with the highest dose.

MVA-NSmut: In this study, MVA-NSmut will be administered at 1.8×10^8 pfu. This dose has been selected based on the use of MVA vectors in primate and human studies. In Oxford, MVA malaria vaccines have been safely administered in multiple Phase I and Phase II studies at 2×10^8 . MVA ME-TRAP and MVA-vectored P. falciparum CS protein has been well tolerated with good immunogenicity at 5×10^8 pfu and no severe adverse events. In study VAC037, MVA MSP1 was associated with more side effects when administered at 5×10^8 pfu compared to studies that have used MVA vectors at a dose of 2×10^8 pfu. In the HCV003 study the MVA-NSmut administered at 2×10^8 has shown a good safety profile and the induction of very potent immune responses. A slightly lower dosage (1.8×10^8 pfu) has been chosen for study, aiming to inject a volume of 0.2mL.

4.4.4. Selection and Timing of Dose for Each Subject

The vaccine schedule will consist of a single priming injection with AdCh3NSmut1, followed by a single boost with MVA-NSmut 56 days later in a heterologous prime/boost regimen. Subjects randomized to placebo will receive 2 doses of placebo at Day 0 and Day 56 (approximately week 8). As placebo, a volume of the normal saline equal to the volume of the investigational vaccines will be used.

4.4.5. Blinding

The pharmacist at each site will refer to the Treatment Key provided for the trial by the SDCC to determine the treatment for the subjects. The pharmacist will maintain an open label code (provided by the SDCC) under locked/secured conditions and will follow the randomization code.

Vaccine will be prepared by a pharmacist or trained nurse and administered by a blinded vaccine administrator. All study assessments will be performed by blinded study personnel. All other staff, as well as all subjects, will be blinded to treatment assignment.

Unblinding is unlikely to be necessary for the provision of medical treatment or to otherwise protect the safety of study subjects. In the event that an investigator is concerned that a subject might be put at undue risk by continuing product use, the investigator may discontinue product use by this subject; however, knowledge of the specific product (vaccine or placebo) to which the subject was assigned should not be necessary to guide further follow-up and/or treatment.

The site investigators and/or Independent Safety Monitor (ISM) should be available to review and evaluate any notable reactions. In the case of a medical emergency, the site investigators or ISM may deem it medically necessary to unblind the subject's treatment assignment. If the site investigators or ISM believe that unblinding would benefit the medical care of the subject and time permits, DMID will be consulted prior to unblinding, and concurrence will be obtained.

Otherwise, subjects will be unblinded to their drug only at the close of the trial. Subjects who develop HCV infections or drop out will not be unblinded early. The Data Safety and Monitoring Board (DSMB) may receive data in aggregate and presented by treatment group, but without the treatment group identified. The DSMB may be unblinded to individual study treatment assignments, as needed, to adequately assess safety issues.

4.4.6. Prior and Concomitant Therapy

Concomitant medications will include all current medications and medications taken within the 30 days prior to enrollment (prescription and over-the-counter drugs, vitamins and supplements, topical products, vaccinations, and allergy shots) through 34 days after the second vaccination (approximately Day 90 for subjects who receive both doses of vaccine or approximately Day 30 for subjects who receive only one dose of vaccine) or early termination (if prior to Day 90), whichever occurs first. Assessment of eligibility also will include a review of permitted and prohibited medications (per the exclusion criteria).

Immunosuppressant medications, as defined by exclusion criterion #22, and medications for the treatment of HCV infection will be collected for the duration of the study. Subjects who take such medications will be excluded from the ATP analysis population. See Section 6.3.4 for more details.

Medications that might interfere with the evaluation of the investigational product should not be used unless absolutely necessary. Medications in this category include, but are not limited to, glucocorticoids, i.e., oral, parenteral and high-dose inhaled steroids, and immunosuppressive or cytotoxic drugs. Other than from participation in this study, subjects should not receive experimental agents including vaccines during the 20-month study period. The administration of licensed vaccines should be delayed until 14 days after the last study vaccination. Subjects should also not receive licensed products from participation in another clinical trial. Subjects who take such medications will be excluded from the ATP analysis population. See Section 6.3.4 for more details.

4.4.7. Treatment Compliance

All subjects were to receive two doses of study product in the clinic. The first dose is administered at Visit 1 (Day 0) and the second dose is administered at Visit 6 (Day 56). The number of doses of study product administered to subjects will be presented by treatment group as part of the subject disposition table ([Table 3](#)). The listing of subjects excluded from the primary efficacy analysis will present subjects who received less than 2 doses ([Listing 1](#)). A listing of number of vaccinations received and missed for all subjects is provided in [Listing 8](#).

4.5. Efficacy, Immunogenicity, and Safety Variables

See Section 3.3 for efficacy and immunogenicity variable definitions.

The safety variables to be assessed are reactogenicity events, unsolicited adverse events (AEs), serious adverse events (SAEs), and protocol specified clinical safety laboratory, physical exam, and vital sign parameters.

Subjects were to record temperature and the presence and intensity of post-vaccination reactogenicity events daily on an 8-day subject memory aid. Local solicited reactogenicity events include: pain, tenderness, erythema, induration and warmth at the injection site. Systemic solicited reactogenicity events include: fever, chills, arthralgia/joint pain, malaise/fatigue, myalgia/body aches, headache, nausea, vomiting, abdominal pain. Erythema and induration at the vaccination site will be measured in millimeters and functional grade. Any symptoms still present at Day 7 will continue to be followed until symptom resolution.

Solicited reactogenicity symptoms will be graded using the scale in section 9.4.4 of the protocol.

Unsolicited adverse event severity will be graded according to parameters shown in Appendix B of the protocol or if graded differently this will be noted in the tables using the definitions in section 9.4.2 of the protocol.

Clinical laboratory evaluations for safety will be performed by local (clinical) laboratories. Venous blood samples will be collected from each subject prior to each vaccination and according to the Study Schedule in Appendix C of the protocol. Clinical safety lab parameters to be followed include WBC, HgB, platelets, ALT, and creatinine. Urine will be collected to evaluate glucose and protein, which will be performed at screening only. Toxicity grades for each clinical laboratory parameter can be found in Appendix B of the protocol.

Multiple observations within a specific visit period are accepted. In the case of multiple observations within a specific window, the assessment value that is closest to the scheduled visit will be used in the analyses for the post-baseline records. For screening and baseline visits, the last assessment value prior to first vaccination will be used as the baseline measurement. All the recorded data will be listed. If observations have the same distance to the scheduled assessment, the latest one will be used.

5. SAMPLE SIZE CONSIDERATIONS

Sample size calculations are based on the assumption of detecting a 60% reduction in incidence of chronic infection over 18 months of post-vaccination follow-up among vaccinated subjects compared to unvaccinated controls in an according to protocol (ATP) analysis. A total of 43 observed events of chronic infection in the ATP cohort would provide power of 85% for a two-sided log rank test conducted at the significance level (alpha) of 0.05 to detect a 60% reduction in hazard rate. The incidence of chronic infection among controls is assumed to be 14% annually [10]. Assuming 14 cases/100 person-years (PY) in the control group, and 5.6 cases/100 PY in the vaccine group, a total of 292.5 subjects in the ATP cohort followed for 1.5 years would provide on average 43 events. We further assume that 65% of enrolled subjects will be retained in the ATP cohort. Therefore, we inflate the required number of subjects by a factor of $1/0.65$ and obtain a target enrollment of 540 subjects, or 270 subjects per vaccination group.

The original enrollment target of the study was 344 subjects. At the April 29, 2014 DSMB meeting, the DSMB reviewed the progress towards the goal of 43 observed events of chronic infection in the ATP cohort and recommended increasing the target enrollment from 344 to 450, or 225 subjects per vaccination group.

At the September 2, 2015 DSMB meeting, the DSMB reviewed the progress towards the goal of 43 observed events of chronic infection in the ATP cohort and recommended increasing the target enrollment from 450 to 540 subjects, or 270 subjects per vaccination group.

6. GENERAL STATISTICAL CONSIDERATIONS

6.1. General Principles

Tabulations will be used extensively to summarize the data. Unless otherwise specified, all continuous variables will be summarized using the following descriptive statistics: n (number of non-missing observations for the measure being summarized in the specified analysis population), mean, standard deviation, median, maximum and minimum. Immunogenicity summaries will use geometric mean. The frequency and percentages (based on the sample size for the specified analysis population and treatment group, N) of observed levels will be reported for all categorical measures. Wilson confidence intervals for binomial proportions and differences in binomial proportions will be computed for efficacy variables. Blaker confidence intervals for binomial proportions and differences in binomial proportions will be computed for safety variables. In general, all data will be listed by treatment group and/or subject, and when appropriate by visit number within subject.

All summary tables will be structured with a column/sub-table for each treatment group (Vaccine, Placebo, and All Subjects). The total population size (N) relevant to that table/column if applicable, including any missing observations will be displayed in the tables.

Note that in the data listings, Subject ID is the unique subject identifier, not the Study ID used on study and dates will not be included, only Study Day.

6.1.1. Pseudo Code

The following SAS® pseudo code will be used to calculate the following for safety analyses:

Chi-Square test at 5% two-sided significance level:

```
proc freq;
    Table treatment*analysis_variable / chisq;
    ods output ChiSq=outputdsn;
run;
```

Fisher's Exact test at 5% two-sided significance level:

```
proc freq;
    Table treatment*analysis_variable / exact;
    ods output FishersExact=outputdsn;
run;
```

95% Wilson CI for proportions/percents:

```
Proc freq;
    Table treatment*analysisvariable / binomial(wilson);
    ods output binomialcls=outputdsn;
Run;
```

95% Wilson CI for difference in proportions (produces Newcombe CI):

```
Proc freq;
    Table treatment*analysisvariable / riskdiff(cl=Wilson);
    Exact Riskdiff;
    ods output pdiffcls=outputdsn;
Run;
```

95% Exact Blaker CI for proportions/percents:

```
Proc freq;
  Table treatment*analysisvariable / binomial(blaker);
  ods output binomialcls=outputdsn;
Run;
```

Odds ratios using ordinal logistic regression:

```
PROC LOGISTIC data=dataset;
  Class treatment (ref='Placebo') baseline(ref='None') / param=reference;
  Model severity_postvaca1=baseline treatment;
Run;
```

```
PROC LOGISTIC data=dataset;
  Class treatment (ref='Placebo') baseline(ref='None') / param=reference;
  Model severity_postvac2=baseline treatment;
Run;
```

See Section 8 for pseudocode to be used in the efficacy analyses.

6.2. Timing of Analyses

The final analysis will be performed after database lock when all HCV RNA negative subjects have been followed through Visit 26, the final study visit, at Day 600 (Window: Days 593-607) and when all subjects who are confirmed HCV RNA positive have been followed through visit H09, approximately Day 270 (Window: Days 249-291) after their first HCV-positive quantitative RNA result, and all research laboratory data are received at the SDCC.

6.3. Analysis Populations

A tabular listing of all subjects, visits, and observations excluded from the efficacy analysis will be provided in the CSR along with the reason for exclusion and censoring day, if applicable ([Listing 1](#)). Four analysis populations will be used in the analyses, the Safety, mITT, According to Protocol (ATP), and Immunogenicity. A listing of subjects whose assigned treatment group does not match their randomized treatment group will be provided in [Listing 2](#).

6.3.1. Safety Population

The safety population includes all randomized subjects who received at least one vaccination. In the unlikely event of an error in randomization or study product administration (i.e., incorrect product at either dose), subjects will be grouped by vaccine group if they received one or more doses of vaccine and in the placebo group otherwise.

6.3.2. Modified Intention-to-Treat (mITT) Population

The mITT population will consist of all randomized subjects who receive at least one vaccination, are not HCV infected at the first vaccination, and have sufficient follow-up to be evaluable for efficacy. See Section 3.3.7 for the definition of sufficient follow up. In the unlikely event of an error in randomization or study product administration (i.e., incorrect product), subjects will be grouped by their intended randomized assignment.

6.3.3. According to Protocol Population

The according to protocol (ATP) population is a subset of the mITT analysis cohort, excluding subjects with major protocol deviations that would compromise the assessment of vaccine efficacy (see list below). Subjects who meet any of the criteria listed below will be censored in time to event analyses according to the date of first occurrence of the criteria, and will be excluded from all other types of analyses. The ATP cohort will exclude subjects who:

- a. receive treatment for acute HCV infection;
- b. were enrolled but subsequently found to have been ineligible at enrollment based on a criterion that could reasonably be expected to affect vaccine efficacy (as reviewed by the blinded clinical review team [see below]);
- c. did not receive both doses of vaccine or control;
- d. acquired HCV infection prior to receipt of the second vaccination;
- e. received the wrong (non-randomized) product at either dose;
- f. received the second dose fewer than 42 days or more than 70 days after the first dose;
- g. received an immunosuppressant other than inhaled or topical steroids;
- h. were immunized against another pathogen or received immunoglobulins or other blood products within 14 days of either dose of study vaccine;
- i. have autoimmune disease; and
- j. have a confirmed or suspected immunosuppressive or immunodeficient state.

Membership in the ATP efficacy cohort will be assessed by a centralized, blinded, clinical review team comprised of the site PIs and the sponsor prior to unblinding of the study data.

6.3.4. Immunogenicity Population

The immunogenicity analysis population will consist of all subjects who received any study product and for whom immunogenicity endpoint data are available. If a subject does not receive the second dose, the subject will not be included in the Post-Dose 2 analyses. In the unlikely event of an error in randomization or study product administration (i.e., incorrect product), subjects will be grouped by the product they actually received. In the unlikely event that a subject receives one dose of vaccine and one dose of placebo, the subject will be excluded from immunogenicity analyses.

6.4. Covariates and Subgroups

As described in Section 4.4.2, the randomization of treatment assignments and the primary analysis will be performed as stratified by gender and IL28B status. Randomization is also stratified by clinical site, however given that the University of New Mexico was added late in enrollment (first enrollment 16 November 2015); stratifying analyses by site in addition to gender and IL28B may result in insufficiently sized strata. Thus, efficacy analyses will not be stratified by site and safety analyses will be separately stratified by site.

6.5. Missing Data

The primary analytical method for most of the study's efficacy objectives is a time-to-event analysis. The methods handle missing or unobserved data by classifying each subject's event as censored at the time of the

first missing result if no events are observed subsequent to that time point. In the case of intermittent missing data, the methods assume no event occurred. Subjects who receive treatment for incident HCV infection will be censored from time to event analyses of chronic infection at the date of first treatment.

No other imputation of missing data is planned.

6.6. Interim Analyses and Data Monitoring

Interim analyses are described in separate Interim Analysis and Ongoing Endpoint Assessment Statistical Analysis Plans.

6.7. Multicenter Studies

As described in Section 4.4.3 and Section 6.4, the randomization of treatment assignments and the primary analysis will be performed as stratified by gender and IL28B status. Randomization is also stratified by clinical site, however given that the University of New Mexico was added late in enrollment (first enrollment 16 November 2015); stratifying efficacy analyses by site in addition to gender and IL28B may result in insufficiently sized strata. Thus, efficacy analyses will not be stratified by site.

Though sites are using standardized procedures for vaccination and assessment of solicited and unsolicited adverse events, and the study relies on central laboratories for the assessment of immunogenicity and clinical efficacy endpoints, there is expected variation in the demographics and risk behavior in the patient population between sites, so site effects of safety data are expected. Estimates of site effects should be considered exploratory given that the study was not explicitly designed with enough power to detect site effects.

See Section 9 for descriptions of the by-site analyses for safety analyses.

6.8. Multiple Comparisons/Multiplicity

No adjustments for multiple testing are planned.

7. STUDY SUBJECTS

7.1. Disposition of Subjects

The disposition of subjects in the study will be tabulated by randomized treatment group and for all subjects. [Table 4](#) shows the number of subjects who are screen failures and the number of subjects that met each inclusion/exclusion criterion. [Table 5](#) summarizes the mITT population eligibilities by randomized treatment group and reasons excluded and [Table 6](#) summarizes the safety, ATP and Immunogenicity analysis population eligibilities by actual treatment group and reasons excluded. Subjects will be included in the count for a particular reason for Exclusion if they met that criterion. As subjects may meet more than one criterion for exclusion, the “Excluded from...” counts may be less than the sum of the individual reason counts. A listing of the subjects excluded from each of the analysis populations and the reasons for exclusion will be provided ([Listing 1](#)). The number of enrolled subjects in the study completing study milestones will be tabulated separately by randomized treatment group. [Table 3](#) shows the total number of subjects enrolled, randomized, receiving first vaccination, receiving second vaccination, with and without confirmed HCV infection, terminated from study follow-up, and completing the study by randomized treatment group. A listing of subjects who completed the study, terminated early from study, or discontinued treatment and the reason for early termination or treatment discontinuation is included in [Listing 3](#).

[Figure 2](#) is a flowchart showing the disposition of study subjects in the primary efficacy analysis, adapted from the CONSORT statement. It shows the number of subjects eligible, enrolled and randomized, lost to follow-up, and analyzed for the primary efficacy analysis, overall and by treatment group.

7.2. Protocol Deviations

A summary of subject-specific protocol deviations will be presented by the deviation category, the type of deviation, and randomized treatment group for all enrolled subjects ([Table 7](#)). All subject-specific protocol deviations and non-subject-specific protocol deviations will be included in Appendix 3 as data listings ([Listing 4](#) and [Listing 5](#), respectively).

8. EFFICACY EVALUATION

All efficacy variables will be listed by subject and summarized by analysis population and treatment group. Continuous efficacy variables will use some or all of the following: n, Mean, Standard Deviation, Median, Minimum and Maximum, whereas Number and Percent will summarize categorical efficacy variables. Confidence intervals for binomial proportions and difference in binomial proportions will be computed using the Wilson confidence limits. All analyses of the time-to-event efficacy variables will be performed using Kaplan-Meier or Cox regression methods. Treatment groups will be tested at the 2-sided 5% significance level. All assumptions for regression models will be assessed by viewing plots of the residual values and other diagnostic plots, though these will not be included in the final report.

8.1. Primary Efficacy Analysis

For the evaluation of the primary efficacy objective of this study, a time to event analysis will be performed in the ATP cohort as follows:

- For subjects without HCV infection, the 6-month chronic infection endpoint will be coded as censored, with time to event defined as the elapsed time from the second vaccination, to the end of the 26 months follow up, or to the last observed visit before loss to follow-up or to the earliest time any criterion listed under the censoring criteria for the ATP cohort was met.
- For subjects who develop HCV infection, the 6-month chronic infection endpoint will be coded as an observed event if the 6-month chronic infection endpoint definition is met, and as censored otherwise, with time to event (chronic or non-chronic infection) defined as the elapsed time from the second vaccination to the date of the sample collection with available test result nearest to the target assessment date of six months after incident infection.

Kaplan-Meier curves for chronic HCV infection will be generated for both the ATP and mITT populations (Figure 3 and Figure 4).

As the primary analysis of the primary outcome measure, the reduction in chronic HCV incidence will be calculated from the hazard ratio of a stratified Cox model for the ATP population. The stratification factors that will be used are gender and IL28B status (i.e. there will be four strata: Female & CC, Female & CT/TT, Male & CC, Male & CT/TT). The model to be fit for subject i is:

$$\log h_i(t) = \alpha_j(t) + \beta x_i$$

where $h(t)$ is the hazard function at time t , $\alpha_j(t)$ is the logarithm of the baseline hazard function for strata j , x_i is a binary indicator for membership in the vaccine as compared to the placebo group.

The model described above will be fit and estimates of vaccine efficacy ($1 - \text{Hazard Ratio}$) will be obtained using PROC PHREG following the pseudocode below:

```
proc phreg data=dataset;
model time*status(0) = treatment;
strata gender il28status;
Ods output parameterestimates=ests(keep=HazardRatio HRUpperCL HRLowerCL);
run;
```

Vaccine Efficacy = $1 - \text{Hazardratio}$;

Lower 95% CI = $1 - \text{HRUpperCL}$ which is the same as $1 - \exp(\text{estimate} + \Phi^{-1}(.975) * \text{stderrratio})$

Upper 95% CI= 1 – HRLowerCL which is the same as $1 - \exp(\text{estimate} - \Phi^{-1}(.975) * \text{stderrratio})$

The p-value of the score test of the treatment main effect (equivalent to the log-rank test) will be calculated and presented. The number of 6-month chronic HCV infections per treatment group, the estimated vaccine efficacy and associated 95% confidence interval will be summarized by treatment group in [Table 8](#).

Secondary and sensitivity analyses of the primary efficacy outcome measure will be performed. First, the analysis will be repeated in the mITT cohort as follows:

- For subjects without HCV infection, the 6-month chronic infection endpoint will be coded as censored, with time to event defined as the elapsed time from the first vaccination to the end of the 26 month follow-up, or to the last observed visit before loss to follow-up or of a criterion listed under the censoring criteria for the mITT cohort.
- For subjects who develop HCV infection, the 6-month chronic infection endpoint will be coded as an observed event if the 6-month chronic infection endpoint definition is met, and as censored otherwise, with time to event defined as the elapsed time from the first vaccination to the date of the sample collection with available test result nearest to the target assessment date of six months after primary infection.

The reduction in chronic HCV incidence will be calculated from the hazard ratio of a stratified Cox model for the mITT population as described above ([Table 8](#)). Stratum-specific summaries will be presented in [Table 9](#).

Second, a sensitivity analysis will be performed in which a Cox model will be fit with binary indicators for membership in the vaccine as compared to the placebo group, and including female as compared to male, and CC IL28B status compared to CT/TT as fixed effects in the model rather than stratification factors. The interaction between time and gender will be assessed using the product of time and the binary indicator for gender as an interaction term in the model. Likewise, the interaction between time and IL28B status will be assessed using the product of time and the binary indicator for gender as an interaction term in the model. The interaction estimates will be provided in the report text and not included in a table. The reduction in chronic HCV incidence will be calculated from the hazard ratio of this model.

The model described above will be fit using PROC PHREG following the pseudocode below:

```
proc phreg data=dataset;
model time*status(0) = treatment gender|time il28bstatus|time;
Ods output parameterestimates=ests(keep=HazardRatio HRUpperCL HRLowerCL);
run;
```

The p-value from the score test of the treatment main effect will be calculated and presented. Results of this sensitivity analysis will be provided in [Table 8](#).

Finally, a sensitivity analysis will be performed, in which subjects who develop HCV infection and do not go on to develop chronic infection will be treated as experiencing a competing risk in the Fine-Gray proportional hazards regression model.

Both the stratified and unstratified with interaction terms models will be fit.

```
proc phreg data=dataset;
class treatment / order=internal ref=first param=glm;
model time*status(0) = treatment / eventcode=1;
hazardratio treatment / diff=pairwise;
```

```

strata gender il28bstatus;
Ods output parameterestimates=ests(keep=HazardRatio HRUpperCL HRLowerCL);
run;

proc phreg data=dataset;
class treatment / order=internal ref=first param=glm;
model time*status(0) = treatment gender|time il28bstatus|time /
eventcode=1;
hazardratio treatment / diff=pairwise;
Ods output parameterestimates=ests(keep=HazardRatio HRUpperCL HRLowerCL);
run;

```

The same summaries as the mITT analyses will be calculated and presented. Results of this sensitivity analysis will be provided in [Table 8](#) and [Table 9](#).

8.2. Secondary Efficacy Analyses

There are no secondary efficacy objectives in this study.

8.3. Exploratory Efficacy Analyses

Exploratory Objective 1: To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce incidence of incident HCV infection compared to placebo among HCV-uninfected IDU.

Kaplan-Meier curves for incident HCV infection will be generated for both the ATP and mITT populations ([Figure 5](#) and [Figure 6](#)).

The reduction in incident HCV incidence will be calculated from the hazard ratio of a stratified Cox model. The stratification factors that will be used are gender and IL28B status (i.e. there will be four strata: Female & CC, Female & CT/TT, Male & CC, Male & CT/TT). The model to be fit for subject i is:

$$\log h_i(t) = \alpha_j(t) + \beta x_i$$

where $h(t)$ is the hazard function at time t , $\alpha_j(t)$ is the logarithm of the baseline hazard function for strata j , x_i is a binary indicator for membership in the vaccine as compared to the placebo group. See Section 3.3.3 for definition of incident HCV infection.

The model described above will be fit using PROC PHREG following the pseudocode below:

```

proc phreg data=dataset;
class treatment;
model time*status(0) = treatment;
strata gender il28status;
Ods output parameterestimates=ests(keep=HazardRatio HRUpperCL HRLowerCL);
run;

```

Vaccine Efficacy = 1 – Hazardratio;

Lower 95% CI= 1 – HRUpperCL which is the same as 1 – exp(estimate + $\Phi^{-1}(.975)$ *stderratio)

Upper 95% CI= 1 – HRLowerCL which is the same as 1 - exp(estimate – $\Phi^{-1}(.975)$ *stderratio)

The p-value of the score test of the treatment main effect (equivalent to the log-rank test) will be calculated and presented. Analyses will be performed in both ATP and mITT populations. The number of incident HCV infections defined as detection of viremia (RNA Reactive) per treatment group and the vaccine efficacy and associated 95% confidence interval will be summarized by treatment group in [Table 10](#). Stratum-specific summaries will be presented in [Table 11](#).

A sensitivity analysis will also be performed by repeating the above using an interval censored Cox model [12]. The model will be fit using PROC ICPHREG following the pseudocode below:

```
proc icphreg data=dataset;
    class treatment;
model (StartInterval, EndInterval) = treatment;
strata gender il28status;
Ods output parameterestimates=ests(keep=HazardRatio HRUpperCL HRLowerCL);
run;
```

Analyses will be performed in both ATP and mITT populations. The number of incident HCV infections per treatment group and the vaccine efficacy and associated 95% confidence interval will be summarized by treatment group in [Table 10](#).

For both the standard and interval-censored versions of the Cox model, an additional sensitivity analysis will be performed in which the Cox model will be fit with binary indicators for membership in the vaccine as compared to the placebo group, female as compared to male, and CC IL28B status compared to CT/TT. The interaction between time and gender will be assessed using the product of time and the binary indicator for gender as an interaction term in the model. Likewise, the interaction between time and IL28B status will be assessed using the product of time and the binary indicator for gender as an interaction term in the model. The reduction in incident HCV incidence will be calculated from the hazard ratio of this model.

The model described above will be fit using PROC PHREG following the pseudocode below:

```
proc phreg data=dataset;
model time*status(0) = treatment gender|time il28bstatus|time;
Ods output parameterestimates=ests(keep=HazardRatio HRUpperCL HRLowerCL);
run;
```

```
proc icphreg data=dataset;
    class treatment;
model (StartInterval, EndInterval) = treatment gender|time
il28bstatus|time;
Ods output parameterestimates=ests(keep=HazardRatio HRUpperCL HRLowerCL);
run;
```

These additional sensitivity analyses will be performed in both ATP and mITT populations. Summaries will be provided in [Table 11](#).

The above analyses will be repeated using the secondary definition of incident HCV infection (See Section 3.3.3). The summaries will be presented in [Table 12](#) and [Table 13](#).

Exploratory Objective 2: To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce 9-month incidence of chronic HCV infection compared to placebo among HCV-uninfected IDU.

The analysis of this objective will follow exactly the analyses described in Section 8.1 with the following modification:

- For subjects in the ATP (mITT) cohort without HCV infection, the 9-month chronic infection endpoint will be coded as censored, with time to event defined as the elapsed time from the second (first) vaccination, to the end of 26 month follow up, or to the last observed visit before loss to follow-up or of a criterion listed under the censoring criteria for the ATP (mITT) cohort.
- For subjects in the ATP (mITT) cohort who develop HCV infection, the 9-month chronic infection endpoint will be coded as an observed event if the 9-month chronic infection endpoint definition is met, and as censored otherwise, with time to event defined as the elapsed time from the second (first) vaccination to the date of the sample collection with available test result nearest to the target assessment date of nine months after primary incident infection.

Kaplan-Meier curves will be presented in [Figure 7](#) and [Figure 8](#). Regression model summaries will be presented in [Table 14](#) and [Table 15](#).

Exploratory Objective 3: To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce peak concentration (magnitude) of HCV RNA compared to placebo, in blood samples of persons with incident HCV infection.

HCV RNA concentrations will be summarized by treatment group and by each month from HCV Infection for the ATP and mITT populations. Summaries will include n (number observed), minimum, maximum, geometric mean and the associated 95% confidence interval as well as geometric fold rise from the concentration at the first HCV RNA detection and the associated 95% confidence interval ([Table 16](#), [Table 17](#), [Table 18](#), [Table 19](#)). For each subject, the peak concentration from the first HCV RNA detection to the 6 month blood collection will be identified. The logarithmic peak concentrations will be compared between the vaccine and placebo groups using a two-sided t-test ([Table 20](#) and [Table 21](#)).

Exploratory Objective 4: To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce duration of HCV viremia (shorter time to spontaneous resolution) during incident infection (6-month period following incident HCV infection) compared to placebo in blood samples of persons with incident HCV infection.

The duration of incident infection (time to spontaneous resolution) is expected to decrease 4-fold in vaccinated subjects who develop viremia (similar to that observed in subjects with HCV reinfection), compared to the placebo group, after 6 months of observation following incident infection. The midpoint between infection and clearance dates will be used to determine duration as previously described (Section 3.3.5). For subjects without observed clearance, the resolution endpoint will be coded as censored, with time to event defined as the elapsed time from the incident infection, to the end of the 6 month follow up, or to the last observed visit before loss to follow-up or to the earliest time any criterion listed under the censoring criteria for the ATP (or mITT) cohort was met.

Analyses of this objective will follow the proportional hazards analysis plan for the primary outcome. Kaplan-Meier curves will be presented in [Figure 9](#) and [Figure 10](#). Regression model summaries will be presented in [Table 22](#) and [Table 23](#). Summary statistics of duration will be presented in [Table 24](#).

Exploratory Objective 5: To determine if AdCh3NSmut1 and MVA-NSmut HCV vaccines will reduce incidence of chronic HCV infection with genotype 1 compared to non-genotype 1 among HCV-uninfected IDU.

A chronic HCV infection genotype 1 will be defined as a chronic HCV infection at 6 months, as defined in Section 3.3.2, with the additional requirement that the infection is genotype 1 as determined from blood samples obtained at the first HCV viremic visit, provided sufficient sample is available.

Because the vaccine is developed from HCV genotype 1b sequences, we hypothesize that we may see greater reduction in chronic infection with HCV genotype 1, compared to other genotypes as a result of stronger genotype specific immune responses: 75% reduction in chronic infection with genotype 1 compared to 45% reduction in chronic infection with non-1 genotypes. These exploratory analyses will be based on estimates of the incidence of HCV genotype 1 infection and non-1 genotypes in each study group using methods for censored survival regression with competing risks (Fine-Gray proportional hazards).

Analyses of this objective will follow the Fine-Gray proportional hazards analysis plan for the Primary Efficacy Objective where two separate models will be fit:

- The primary event of interest is chronic HCV with genotype 1 and the competing event is chronic HCV with genotype other than 1.
- The primary event of interest is chronic HCV with genotype other than 1 and the competing event is chronic HCV with genotype 1.

Kaplan-Meier curves will be presented in [Figure 11](#) and [Figure 12](#). Regression model summaries will be presented in [Table 25](#) and [Table 26](#).

Additional Exploratory Analyses

A summary of study rates by treatment group and site are provided in [Table 27](#) and [Table 28](#), respectively.

With regard to the primary efficacy endpoint, as all possible cases, including cases with uncertain classification for chronicity, will be reviewed by a blinded independent endpoint review committee (ERC) to make a determination of infection outcome. This committee will be comprised of the study PIs, HCV experts, and the SDCC. An interim case review committee comprised of HCV experts, the SDCC, and DMID met on October 14, 2016 and the members were concerned that the endpoint definition in the protocol does not account for subjects with mixed genotype infections; so, if a person's dominant genotype changes over the 6-month period, per the protocol, the subject would not be included as a 6-month chronically infected endpoint case but, in practice, the person still has chronic HCV infection. It was proposed that in addition to the "per protocol" assessments, that the ERC voting members provide their "real-world" and "expert clinical" assessment. The Committee asked that an exploratory analysis of 6-month and 9-month chronicity be conducted using their "expert clinical" non-per protocol assessment of chronic infections to include these more complex cases of potential mixed infections and to include subjects who miss the 6-month visit window, but remain viremic afterwards.

At the final ERC review, the committee will determine case status per protocol as well as ERC-defined cases. The number of 6 and 9 month chronic HCV infections as determined by the ERC per treatment group and the vaccine efficacy and associated 95% confidence interval will be summarized by treatment group in [Table 29](#) and [Table 30](#) for the mITT and ATP populations.

Subject listings of HCV infection status and HCV positive quantitative results are provided in [Listing 24](#) and [Listing 25](#), respectively. A listing of genotyping results, sequence evaluation and ERC Assessment is provided in [Listing 26](#).

9. SAFETY EVALUATION

9.1. Demographic and Other Baseline Characteristics

Ethnicity, race, gender, and IL28B status will be summarized for all enrolled subjects by site in [Table 31](#) and by randomized treatment group in [Table 32](#). Ethnicity, race, gender, and IL28B status will be summarized for the mITT population in [Table 33](#) and the ATP population in [Table 34](#), as these covarates are used in the models described in Section 8. Ethnicity is categorized as Hispanic or Latino, or Not Hispanic or Latino. Race is categorized as American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander, Black or African American, White, Multi-Racial or Unknown In accordance with NIH reporting policy. IL28B status will be categorized as CC/CT TT. Subjects may self-designate as belonging to more than one race (Multi-Racial) or may refuse to identify a race (Unknown), the latter reflected in the Case Report Form (CRF) as “No” to each racial option. Age and BMI will be summarized by site in [Table 35](#) and by randomized treatment in [Table 36](#).

Individual subject listings will be presented for all demographics ([Listing 6](#)).

9.1.1. Prior and Concurrent Medical Conditions

All current illnesses and past pre-existing medical conditions will be coded using MedDRA® dictionary version 20.1 or higher. Summaries of subjects’ current and pre-existing medical conditions will be presented by randomized treatment group and site ([Table 37](#) and [Table 38](#)).

Individual subject listings will be presented for all medical conditions ([Listing 7](#)).

9.2. Measurements of Treatment Compliance

All subjects were to receive two doses of study product in the clinic. The first dose is administered at Visit 1 (Day 0) and the second dose is administered at Visit 6 (Day 56). Dates of first treatment are presented by site in [Table 39](#) and by treatment group in [Table 40](#). The number of doses of study product administered to subjects will be presented by treatment group as part of the subject disposition table ([Table 3](#)) and will be included in the listing of subjects excluded from the primary efficacy analysis ([Listing 1](#)). A listing of compliance data is provided in [Listing 8](#).

9.3. Adverse Events

When calculating the incidence of solicited and unsolicited adverse events (i.e., on a per subject basis), each subject will only be counted once and any repetitions of adverse events within a subject will be ignored; the denominator will be the number of subjects who received study vaccination with non-missing data for the event summarized within actual treatment group. All adverse events reported will be included in the summaries and analyses. All analyses in Section 9.3 will be performed in the safety analysis population using vaccine group if a subject received one or more doses of vaccine and placebo group otherwise.

9.3.1. Solicited Events and Symptoms

Solicited reactogenicity symptoms were collected before vaccination, and then daily for 8 days post vaccination and graded on a scale of 0 (none), 1 (mild), 2 (moderate) and 3 (severe). Signs and symptoms will be categorized as either local (pain, tenderness, erythema, induration, and warmth) or systemic (fever, malaise/fatigue, myalgia/body aches, headache, nausea, vomiting, chills, arthralgia/joint pain, and abdominal pain).

Analyses will be conducted separately for each dose and over all doses. Both doses will be compared to see if a reaction to the first dose is predictive of a reaction to the second dose.

The number and proportion of subjects reporting at least one local and/or systemic solicited reactogenicity sign or symptom will be summarized for each solicited event and any solicited event by dose number along with the 95% Blaker CI (Table 41, Table 42, Table 43). The primary safety endpoint is the occurrence of severe local and/or systemic solicited events in the 8 days (Day 0-7) after each dose. The number and proportion of subjects reporting at least one severe local and/or systemic solicited reactogenicity sign or symptom will be summarized for each severe solicited event and any severe solicited event by dose number along with the 95% Blaker CI. The difference in the proportions of subjects experiencing a severe solicited event between AdCh3NSmut1/MVA-NSmut vaccine treatment group and the placebo treatment group and the 95% Exact CI of the difference will also be reported. Solicited events will be analyzed by taking the most severe response over the follow-up period and dichotomizing into a binary variable (severe versus none, mild, or moderate). A Fisher's exact test will be performed to test for the difference in the proportion of subjects reporting a severe solicited reactogenicity event. The null hypothesis is that there is no difference in proportions of subjects reporting severe solicited reactogenicity events between treatment groups, with a two-sided alternative which considers the possibility of a difference in either direction. Section 6.1 provides pseudo SAS code to use for the analyses. (Table 44, Table 45, Table 46).

For each systemic and local reactogenicity event, any systemic event, any local event, and any solicited event, the maximum severity in the 8 days (Day 0-7) after each vaccination will be summarized for the Safety population. The number and percentage of subjects reporting each event will be summarized by the maximum severity, HCV infection status, and treatment group, separately for each dose and over all doses. HCV infection status will be categorized as HCV infected if at any time throughout the study they develop HCV and categorized as HCV uninfected otherwise. For each event, the denominator is the number of subjects with non-missing data for the specific solicited reactogenicity event (Table 47, Table 48, Table 49, Table 50, Table 51, Table 52, Figure 19, Figure 20, Figure 21, Figure 22).

The number of subjects reporting a solicited adverse event will be summarized for each day post vaccination (Day 0-7) for each dose both in a summary table (Table 53, Table 54, Table 55, Table 56) and graphically in a bar chart (Figure 23, Figure 24, Figure 25, Figure 26). A comparison of the event rate for each treatment group between dose 1 and dose 2 will be presented (Table 57)

Solicited local and systemic adverse events by subject will be presented in Listing 9 and Listing 10.

9.3.2. Unsolicited Adverse Events

Adverse events will be collected through day 90. At visits following Day 90, only SAE's will be collected. Adverse events will be graded on a scale of 0 (none), 1 (mild), 2 (moderate), 3 (severe), 4 (life threatening), and 5 (death).

Adverse events will be coded to a Medical Dictionary for Regulatory Activities Terminology (MedDRA) version 20.1 or later. Verbatim description, the MedDRA System Organ Class, and Preferred Term for all adverse events will be contained in the subject data listings.

The proportion of subjects reporting at least one unsolicited adverse event will be summarized by dose and over all doses, MedDRA® system organ class (SOC) and preferred term (PT) for all subjects and each actual treatment group. Denominators for percentages are the number of subjects who received the dose being summarized. A 95% Blaker CI will be presented for each SOC and PT. (Table 58, Table 59, Table 60)

Adverse events by subject will be presented in Listing 11.

The following summaries for unsolicited adverse events will be presented by SOC, PT, dose and treatment group:

- Number and percentage of subjects by dose, HCV Infection Status, maximum severity and maximum relationship to study product including Frequency (Event level) of events for all subjects and by actual treatment received ([Table 61](#), [Table 62](#), [Table 63](#), [Table 64](#), [Table 65](#), [Table 66](#));
- Number and percentage of subjects by dose, HCV Infection Status, maximum severity and maximum relationship to study product including Frequency (Event level) of events for all subjects and by actual treatment received ([Table 67](#), [Table 68](#), [Table 69](#));
- Subject incidence and total frequency of adverse events over time (Days 1-8, Days 8-55, Days 56-63, Days 64-90) ([Table 70](#), [Table 71](#), [Table 72](#));
- Subject listing of non-serious adverse events of moderate or greater severity ([Table 73](#));
- Bar chart of total frequency of adverse events by severity and SOC ([Figure 27](#));
- Bar chart of subject incidence of adverse events by severity and SOC ([Figure 28](#));
- Bar chart of total frequency of adverse events by relationship to study product and SOC ([Figure 29](#));
- Bar chart of subject incidence of adverse events by relationship to study product and SOC ([Figure 30](#));
- For all adverse events (solicited, unsolicited, or laboratory events) occurring in 5% of subjects in any treatment group, the frequency of each event will be presented by MedDRA® system organ class, preferred term, and treatment group in [Table 74](#).
- For all adverse events (solicited, unsolicited, or laboratory events) occurring in 5% of subjects in any treatment group, the number and percentage of subjects reporting each event presented by SOC, PT, and treatment group in [Table 75](#).

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

The primary safety endpoint is the occurrence of vaccine-related serious adverse events (SAEs) from the time of first vaccination through the entire study period. The number of subjects, the percentage of subjects who experienced vaccine-related SAEs, and the 95% Blaker confidence interval for the proportion of subjects who experienced vaccine-related SAEs will be presented by treatment group and study visit for each dose and across all doses. In addition, the difference in proportions between the AdCh3NSmut1/MVA-NSmut vaccine group and the placebo group and 95% Exact confidence intervals will be presented. The proportion of subjects in each treatment group who experience vaccine-related SAEs through the entire study period will be tested using a Fisher's exact test at the 5% two-sided level of significance level without adjustment for multiplicity in the safety analysis population ([Table 76](#)). See Section 6.1 for pseudocode for calculating p-values and CIs. SAEs will be summarized by treatment group, PT, SOC, maximum severity and relationship for each dose and over all doses ([Table 77](#), [Table 78](#), [Table 79](#), [Table 80](#), [Table 81](#), [Table 82](#)).

A listing of all serious adverse events will be presented, including Subject ID, treatment group, Adverse Event Description, Study Day the Event became Serious, Reason Reported as an SAE, Relationship to Treatment, Alternate Etiology if not Related, Outcome, and Duration of Event in days ([Table 83](#)). A listing of deaths will be presented in [Table 84](#).

9.5. Pregnancies

For any subjects in the Safety population who became pregnant during the study, every attempt will be made to follow these subjects to completion of pregnancy to document the outcome, including information regarding any complications with pregnancy and/or delivery. Listings of the total pregnancies; gravida and para; number of live births; number of still births; and number of spontaneous, elective, or therapeutic abortions will be presented ([Listing 12](#), [Listing 13](#), [Listing 14](#), [Listing 15](#), and [Listing 16](#)).

9.6. Clinical Laboratory Evaluations

Safety clinical laboratory measures will include measures of white blood cell (WBC), hemoglobin (Hgb), platelets, ALT, and creatinine. The clinical laboratory reference ranges will be provided in Section 12.4.1 and are found in Appendix B of the protocol. Clinical laboratories collected prior to confirmed HCV infection will be summarized separately from clinical laboratories collected after confirmed HCV infection. This separation will be defined as HCV infection status.

Laboratory abnormalities are those that meet toxicity grading. When the site-specific laboratory normal range is available, if there is a discrepancy between the laboratory value in Appendix B of the protocol and the site-specific laboratory normal range, the site-specific ranges will take precedence in determining Grade 1 adverse events. Otherwise, all laboratory tests will be graded per the toxicity table in Appendix B of the protocol as well as in [Table 124](#), [Table 125](#), [Table 126](#), and [Table 127](#). Unscheduled or repeated follow-up laboratory tests for medical or safety reasons will be listed, but excluded from tabular and graphical summaries.

The primary safety endpoint is occurrence of clinical safety laboratory adverse events assessed at baseline and 1 month following each vaccination. The number of subjects reporting at least one laboratory measurement at the visit, the proportion of subjects who experienced laboratory AEs, and the 95% Blaker confidence interval for the proportion of subjects who experienced laboratory AEs will be presented by treatment group. In addition, the difference in proportions between the AdCh3NSmut1/MVA-NSmut vaccine group and the placebo group and 95% Exact confidence intervals will be presented in [Table 85](#).

The proportion of subjects with laboratory results meeting toxicity grading criteria will be presented for each biochemistry and hematology parameter by HCV Infection status, visit, toxicity grade, and treatment group in [Table 86](#), [Table 87](#), [Table 90](#), and [Table 91](#), respectively. The proportion of subjects with laboratory results related to study product meeting toxicity grading criteria will be presented for each biochemistry parameter in [Table 88](#) and [Table 89](#) and each hematology parameter in [Table 92](#) and [Table 93](#) by HCV Infection status, severity, study day and treatment group. Descriptive statistics including mean, standard deviation, median, mean change from baseline and associated standard deviation by timepoint, for each laboratory parameter, will be summarized by HCV Infection status and treatment group in [Table 94](#), [Table 95](#), [Table 96](#), [Table 97](#), [Table 98](#), [Table 99](#), [Table 100](#), [Table 101](#), by treatment group. Laboratory values will be presented by visit and treatment group in [Figure 31](#), [Figure 32](#), [Figure 33](#), [Figure 34](#), [Figure 35](#), [Figure 36](#), [Figure 37](#), [Figure 38](#), [Figure 39](#), and [Figure 40](#). Shift tables by time point, based on the normal ranges provided by the clinical laboratory, are presented in [Table 102](#), [Table 103](#), [Table 104](#), and [Table 105](#).

The denominator for proportions is the number of subjects with each specific laboratory parameter at the visit. Additionally, graded results will be analyzed as a multinomial variable (Grade 0, Grade 1, Grade 2, Grade 3 and above) using ordinal logistic regression to make treatment group comparisons. The odds of a lab parameter being in a higher level severity among subjects receiving vaccine compared to placebo will be calculated ([Table 106](#), [Table 107](#), [Table 108](#), [Table 109](#)). The covariates that will be used are treatment group

and baseline laboratory severity. The proportional odds assumption will be tested to show whether or not the relationship between each pair of outcome groups is the same.

The model described above will be fit for each laboratory parameter and estimates of which factors influence severity at baseline and one month after each vaccination will be obtained using PROC LOGISTIC following the pseudocode in Section 6.1.1.

A listing of laboratory tests with toxicity Grade ≥ 2 will also be provided for biochemistry and hematology results. If a subject meets this criterion, the listing will provide data from all visits for the particular lab test that meet the criteria so that the time course for the particular lab parameter can be observed. See [Table 110](#) and [Table 111](#). A listing of all clinical laboratory values will be generated in [Listing 17](#) and [Listing 18](#).

9.7. Vital Signs and Physical Evaluations

Vital sign measurements included systolic blood pressure, diastolic blood pressure, pulse, and oral temperature. Vital signs were assessed at Day 0 and, Day 56. A targeted physical exam is performed at the screening visit, and if necessary at follow up visits. The following body systems will be assessed: Abdomen, Cardiovascular/heart Extremities, General Appearance, HEENT, Lymph nodes, Musculoskeletal, Neck, Neurological, Pulmonary/Chest, and Skin Since the evaluations are symptom-driven from enrollment to the end of follow-up, subject listings of vital signs and targeted physical exam findings will be provided ([Listing 19](#) and [Listing 20](#)).

9.8. Concomitant Medications

Summaries of medications that were started prior to dosing and continuing at the time of dosing as well as medications that were starting during dosing or during follow up will be presented by WHO Drug Anatomical codes (ATC) level 1 and level 2 and actual treatment group for subjects in the Safety population ([Table 112](#)) and by site ([Table 113](#)).

Individual subject listings will be presented for all concomitant medications ([Listing 21](#)).

Summaries of substance treatment will be summarized by site and treatment group in [Table 114](#) and [Table 115](#). A subject listing will be provided in [Listing 22](#).

10. IMMUNOGENICITY

The secondary objective of this study is to evaluate the immunogenicity of the AdCh3NSmut1 and MVA-NSmut vaccines compared to placebo when administered to HCV-uninfected IDUs. To assess this, the frequency of positive cell mediated immune responses within 14 days after the last vaccination will be compared between the vaccine and placebo groups.

The primary assay to monitor vaccine immunogenicity is the IFN- γ ELISpot, which will be performed at time points indicated in the study visit flow chart in Section 4.5. Samples are run in triplicate; thus, each pool of peptides will have three responses. In addition, the ELISpot data is reported from the lab in spots per 200,000 PBMC. Thus, in calculating an individual's pool-specific response, the raw data for a pool will be multiplied by five and then averaged across the triplicates. The negative control, DMSO, is also analyzed (in triplicate). Thus, to correct for background for each individual, the average of the triplicate DMSO responses will be subtracted from each of the averaged pool responses. All analyses of ELISpot data will use the averaged and background-corrected responses. Pool-specific summaries will use the following labels: NS3p, NS3h, NS4, NS5a, NS5bI, and NS5bII (these labels correspond to the following peptides, respectively: NS3 protease aa 1027-1349, NS3 helicase aa 1339-1661, NS4 aa 1655-1977, NS5a aa 1971-2425, NS5bI aa 2415-2725, and NS5b aa 2715-3011). In addition, for Visit 26 summaries, the following five pools will also be included in pool-specific summaries: Core, E1, E2, p7, and NS2. These additional pools will not be used for summaries that combine pools.

A positive immune response is defined by two criteria:

- i. more than 48 spot forming cells per million PBMC;
- ii. at least three times the mean background spots per million PBMC found in ELISpot wells containing cells and peptide diluent (DMSO) [13,14,15].

An individual will be considered a responder if a positive response to at least one in 6 mixtures (pools) of peptides is detected. The number of responders and response rate with associated 95% confidence interval will be summarized by treatment group (Table 116).

A number of secondary summaries of the immunogenicity data will be generated. Some of the summaries will be generated by treatment group whereas others will only be generated for subjects in the vaccine group. The summaries will be generated separately for HCV negative and HCV positive subjects. The following tables, figures, and listings will be generated:

- Geometric mean and geometric mean fold rise ELISpot responses (across all peptide pools) by study day and treatment group (Table 117 and Table 118)
- Geometric mean and geometric mean fold rise ELISpot responses (across positive peptide pools) by study day and treatment group (Table 119 and Table 120)
- Total number of positive peptide pools by study day and treatment group (Table 121 and Table 122)
- Maximum ELISpot response (across positive peptide pools) by treatment group (Table 123).
- Individual and Median ELISpot Responses (across all peptide pools) by Study Day [excluding uninfected placebo recipients] (Figure 13, Figure 14, and Figure 15).
- Boxplots of ELISpot Response to Peptide Pools at Study Day 63 [excluding uninfected placebo recipients] (Figure 16).

- Number of Positive Peptide Pools by Study Day [excluding uninfected placebo recipients] ([Figure 17](#)).
- Boxplots of Maximum ELISpot Responses to Peptide Pools [excluding uninfected placebo recipients] ([Figure 18](#)).

A listing of individual immunogenicity data will be provided in [Listing 23](#) .

11. OTHER ANALYSES

In the March 25, 2013 Data and Safety Monitoring Board summary report for DMID Protocol 10-0069, the early discontinuation rate for the study was observed to be higher than anticipated in the protocol. During the March 2013 DSMB teleconference, the DSMB members recommended that behavior data be analyzed against dropouts to determine if there is a difference in behavior between subjects who remain in follow-up or complete the study and subjects who discontinue the study early. A risk behavior assessment report was generated to address the DSMB's recommendation and presented at the April 29, 2014, May 26, 2015, and October 2016 DSMB teleconferences. No differences in behavior between subjects who remained in follow-up or completed the study and subjects who discontinued the study early were identified. The summaries presented at the DSMB teleconferences will be included in the final report to re-assess whether there are differences in risk behavior between subjects who remain in follow-up or completed the study and subjects who discontinued the study early.

The behavior data focus on injection drug use practices collected in the Behavioral Assessment Questionnaire administered in 90 day intervals throughout the duration of the planned follow-up period for the study. The behavior data presented in the final report will be grouped in figures by related Behavioral Assessment Questionnaire questions. The hypothesis tests performed for the risk behavior analyses are for illustrative purposes and not for making definitive claims.

The tables and figures to be generated for the final report will follow a subset of the shells provided in the Risk Behavior Assessment Shells (v1.0, September 2013). Each table and figure will be generated for all enrolled subjects, and separately for each treatment group. Below summarizes the subset of tables and figures to be included in the final report using the numbering in the Risk Behavior Assessment Shells document. The figures will be combined into paneled figures in the final report.

A table will be generated which summarize behavioral assessment completion by visit (Table 1 in Risk Behavior Shells document).

Tables and figures will be generated which summarize baseline behavior data by site and by study status. Each set of related questions in the questionnaire are summarized in different subfigures. Denoted in the figures are the questions with statistically significant results for the following three sets of hypothesis tests:

- For dichotomous responses: whether the proportion of 'Yes' respondents is the same across site using Fisher's Exact Test (significance level of 0.05). The null hypothesis is that the proportion of 'Yes' respondents is the same across site. For continuous responses: whether the distribution of responses is equal across site using the Kruskal-Wallis Test (significance level of 0.05). The null hypothesis is that the distribution of responses is equal across site
- For dichotomous responses: whether the proportion of 'Yes' respondents is the same across study status within each site using Fisher's Exact Test (significance level of 0.05). The null hypothesis is that the proportion of 'Yes' respondents is the same across study status. For continuous responses: whether the distribution of responses is equal across study status within each site using the Wilcoxon test (significance level of 0.05). The null hypothesis is that the distribution of responses is equal across site.
- For dichotomous responses: whether the odds ratio between study status is the same at each site using the Breslow Day test (significance level of 0.05). The null hypothesis is that the odds ratios at each site are all equal. For continuous responses: whether the distribution of responses is the same across study status at both sites using Van Elteren's test (significance level of 0.05). The null hypothesis is that the distribution of responses at each site are all equal.

(See Table 2.1 and Table 2.2 in Risk Behavior Shells Document and [Figure 41](#) and [Figure 42](#) in this SAP).

Additional figures will summarize behavior data for each study visit, by study status and at all study visits in which a subject continued follow-up or completed the study after conducting the behavioral assessment. The goal of the latter is to determine if there was a change in behavior prior to early termination as compared to all other timepoints in the study. Each question will be summarized in a separate figure (See all Figures in Risk Behavior Shell document).

12. REPORTING CONVENTIONS

P-values ≥ 0.001 and ≤ 0.999 will be reported to 3 decimal places; p-values less than 0.001 will be reported as “<0.001”; p-values greater than 0.999 will be reported as “> 0.999”. The mean, median, standard deviation, and any other statistics other than quantiles, will be reported to one decimal place greater than the original data. Quantiles other than the median will use the same number of decimal places as the original data. Proportions will be presented as two decimal places; values <0.01 will be presented as “<0.01”. Percentages will be reported to the nearest whole number; values < 1% will be presented as “<1”. Estimated parameters, not on the same scale as raw observations (e.g. regression coefficients) will be reported to 3 significant figures.

13. TECHNICAL DETAILS

SAS version 9.4 or above will be used to generate all tables, figures and listings.

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

The DSMB met on April 29, 2014 for a Data Review Meeting for a routine safety review. The DSMB recommended the sample size be increased to 450 subjects to replace dropout subjects. The protocol was amended on October 29, 2014 to version 7.0 to increase enrollment from 344±8 to 450±8 and extended the study duration from 47 to 54 months.

The DSMB met on September 2, 2015 for a Data Review Meeting and to review aggregate endpoint and enrollment data. The objective of this meeting was to conduct a blinded examination of progress towards the statistical information goal and to decide whether to recommend an extension of the enrollment period. The DSMB identified no safety concerns and recommended that the study continue as per the protocol. They also recommended that an 85 percent power with a two sided confidence interval was maintained and that enrollment should continue until 540 subjects are enrolled. The protocol was amended on October 6, 2015 to Version 9.0 to increase enrollment from 450±8 to 540±8 and extended enrollment from 54 to 63 months.

The definition of incident HCV infection for exploratory endpoint 1 in this SAP differs slightly from the definition in the protocol. In this SAP, two definitions of incident HCV infection are used: one which incorporates HCV RNA results only, and one that utilizes the anti-HCV testing results (see Section 3.3.3).

A number of exploratory analyses of the efficacy, immunogenicity, and risk behavior data were added to supplement the outcome measures defined in the protocol.

The protocol uses the terms “primary infection”, “acute infection”, and “incident infection” to describe the incident infection of HCV. This SAP replaces these terms with “incident infection”.

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16. LISTING OF TABLES, FIGURES, AND LISTINGS

Table, figure, and listing shells are presented in Appendices 1, 2, and 3.

APPENDICES

APPENDIX 1. TABLE MOCK-UPS

This document includes example mock-ups of tables to present immunogenicity, efficacy, and safety data.

Instructional text is included in brackets [Instruction or Implementation Note:].

LIST OF TABLES

Table 1:	Schedule of Study Procedures for HCV Uninfected Subjects.....	48
Table 2:	Schedule of Study Procedures for Subjects with Confirmed HCV Infection.....	51
Table 3:	Subject Disposition by Treatment Group- All Enrolled Subjects	53
Table 4:	Ineligibility Summary of Screen Failures.....	54
Table 5:	Modified Intent-to-Treat Analysis Populations by Treatment Group	55
Table 6:	Safety, According to Protocol, and Immunogenicity Analysis Populations by Treatment Group.....	56
Table 7:	Distribution of Protocol Deviations by Category, Type, and Treatment Group	58
Table 8:	Vaccine Efficacy Against 6-Month Chronic HCV Infection by Treatment Group and Analysis Population.....	59
Table 9:	Stratum-Specific Vaccine Efficacy Against 6-Month Chronic HCV Infection by Treatment Group and Analysis Population.....	60
Table 10:	Vaccine Efficacy Against Incident HCV Infection by Treatment Group and Analysis Population.....	61
Table 11:	Stratum-Specific Vaccine Efficacy Against Incident HCV Infection by Treatment Group and Analysis Population.....	62
Table 12:	Vaccine Efficacy Against Incident HCV Infection (via anti-HCV Testing) by Treatment Group and Analysis Population.....	63
Table 13:	Stratum-Specific Vaccine Efficacy Against Incident HCV Infection (via anti-HCV Testing) by Treatment Group and Analysis Population	63
Table 14:	Vaccine Efficacy Against 9-Month Chronic HCV Infection by Treatment Group and Analysis Population.....	64
Table 15:	Stratum-Specific Vaccine Efficacy Against 9-Month Chronic HCV Infection by Treatment Group and Analysis Population.....	65
Table 16:	Geometric Mean (GM) HCV RNA Concentrations with 95% Confidence Intervals by Study Day and Treatment Group—According-To-Protocol Population.....	66
Table 17:	Geometric Mean (GM) HCV RNA Concentrations with 95% Confidence Intervals by Study Day and Treatment Group—mITT Population	66

Table 18:	Geometric Mean Fold Rise (GMFR) HCV RNA Concentrations by Study Day and Treatment Group—According-To-Protocol Population	67
Table 19:	Geometric Mean Fold Rise (GMFR) HCV RNA Concentrations by Study Day and Treatment Group—mITT Population.....	67
Table 20:	Geometric Mean (GM) Peak HCV RNA Concentrations with 95% Confidence Intervals by Treatment Group— According-To-Protocol Population	68
Table 21:	Geometric Mean (GM) Peak HCV RNA Concentrations with 95% Confidence Intervals by Treatment Group— mITT Population.....	68
Table 22:	Vaccine Efficacy Against Duration of Incident HCV Infection by Treatment Group and Analysis Populatin	69
Table 23:	Stratum-Specific Vaccine Efficacy Against Duration of Incident HCV Infection by Treatment Group and Analysis Population	70
Table 24:	Summary Statistics of Duration of Incident HCV Infection by Treatment Group and Analysis Population	71
Table 25:	Vaccine Efficacy Against 6-Month Chronic HCV Genotype 1 Infection by Treatment Group and Analysis Population.....	72
Table 26:	Vaccine Efficacy Against 6-Month Chronic HCV Genotype non-1 Infection by Treatment Group and Analysis Population.....	72
Table 27:	Summary of Study Rates by Treatment Group- All Enrolled Subjects.....	73
Table 28:	Summary of Study Rates by Site-All Enrolled Subjects	74
Table 29:	Vaccine Efficacy Against 6-Month Chronic HCV Infection as Determined by the Endpoint Review Committee by Treatment Group and Analysis Population	75
Table 30:	Vaccine Efficacy Against 9-Month Chronic HCV Infection as Determined by the Endpoint Review Committee by Treatment Group and Analysis Population	75
Table 31:	Summary of Categorical Demographic and Baseline Characteristics by Site- All Enrolled Subjects	76
Table 32:	Summary of Categorical Demographic and Baseline Characteristics by Treatment Group-All Enrolled Subjects	77
Table 33:	Summary of Categorical Demographic and Baseline Characteristics by Treatment Group-mITT Population.....	77
Table 34:	Summary of Categorical Demographic and Baseline Characteristics by Treatment Group-ATP Population	77
Table 35:	Summary of Continuous Demographic and Baseline Characteristics by Site- All Enrolled Subjects.....	78

Table 36:	Summary of Continuous Demographic and Baseline Characteristics by Treatment Group- All Enrolled Subjects.....	79
Table 37:	Summary of Subjects with Pre-Existing Medical Conditions by MedDRA System Organ Class and Treatment Group-Safety Population-All Subjects.....	80
Table 38:	Summary of Subjects with Pre-Existing Medical Conditions by MedDRA System Organ Class and Site-Safety PopulationJohns.....	80
Table 39:	Dates of First Treatment by Site – Safety Population	81
Table 40:	Dates of First Treatment by Treatment Group - Safety Population.....	82
Table 41:	Number and Percentage of Subjects Experiencing Solicited Events with 95% Confidence Intervals by Symptom, Dose, and Treatment Group-Safety Population-Post Either Dose.....	83
Table 42:	Number and Percentage of Subjects Experiencing Solicited Events with 95% Confidence Intervals by Symptom, Dose, and Treatment Group-Safety Population-Post Dose 1.....	84
Table 43:	Number and Percentage of Subjects Experiencing Solicited Events with 95% Confidence Intervals by Symptom, Dose, and Treatment Group-Safety Population-Post Dose 2.....	84
Table 44:	Comparison of the Proportion of Subjects Experiencing Any Grade 3 Solicited Adverse Events in the 8 Days After Each Vaccination by Dose and Treatment Group - Safety Population.....	85
Table 45:	Comparison of the Proportion of Subjects Experiencing Grade 3 Solicited Local Adverse Events in the 8 Days After Each Vaccination by Dose and Treatment Group - Safety Population.....	85
Table 46:	Comparison of the Proportion of Subjects Experiencing Grade 3 Solicited Systemic Adverse Events in the 8 Days After Each Vaccination by Dose and Treatment Group - Safety Population.....	85
Table 47:	Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population- Post Either Dose, HCV Uninfected*	86
Table 48:	Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population - Post Either Dose, HCV Infected*	89
Table 49:	Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population - Post Dose 1, HCV Uninfected*	89
Table 50:	Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population - Post Dose 1, HCV Infected*	89

Table 51: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population - Post Dose 2, HCV Uninfected*	89
Table 52: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population - Post Dose 2, HCV Infected.....	89
Table 53: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, Dose, Day Post Dosing, and Treatment Group-Safety Population-Vaccine, Post Dose 1	90
Table 54: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, Dose, Day Post Dosing, and Treatment Group-Safety Population- Placebo, Post Dose 1	94
Table 55: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, Dose, Day Post Dosing, and Treatment Group-Safety Population- Vaccine, Post Dose 2	94
Table 56: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, Dose, Day Post Dosing, and Treatment Group-Safety Population- Placebo, Post Dose 2.....	94
Table 57: Number and Percentage of Subjects Experiencing Solicited Events for Dose 1 Compared with Dose 2 by Treatment Group.....	95
Table 58: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events with 95% Confidence Intervals by MedDRA System Organ Class and Preferred Term, Dose Number, and Treatment Group-Safety Population- Post Either Dose	96
Table 59: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events with 95% Confidence Intervals by MedDRA System Organ Class and Preferred Term, Dose Number, and Treatment Group- Safety Population-Post Dose 1.....	96
Table 60: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events with 95% Confidence Intervals by MedDRA System Organ Class and Preferred Term, Dose Number, and Treatment Group-Safety Population- Post Dose 2	96
Table 61: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Either Dose.....	97
Table 62: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Either Dose	98

Table 63:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Dose 1	99
Table 64:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Dose 1	99
Table 65:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Dose 2	99
Table 66:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Dose 2	99
Table 67:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Site-Safety Population	100
Table 68:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Site-Safety Population, University of California, San Francisco	101
Table 69:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Site-Safety Population, University of New Mexico	101
Table 70:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Day Post Dosing, and Treatment Group-Safety Population	102
Table 71:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Day Post Dosing, and Treatment Group- Safety Population-Vaccine	102
Table 72:	Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Day Post Dosing, and Treatment Group- Safety Population-Placebo	102
Table 73:	Listing of Non-Serious, Unsolicited, Severe or Greater Adverse Events.....	103
Table 74:	Number of Adverse Events Occurring in 5% of Subjects in Any Treatment Group by MedDRA System Organ Class and Preferred Term, and Treatment Group - Safety Population	104
Table 75:	Subjects Reporting Adverse Events Occurring in 5% Subjects in Any Treatment Group by MedDRA System Organ Class and Preferred Term, and Treatment Group - Safety Population.....	105

Table 76:	Proportion of Subjects Reporting Vaccine Related Serious Adverse Events Following the First Vaccination through the Entire Study Period by Dose Number and Treatment Group – Safety Population	106
Table 77:	Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population	107
Table 78:	Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population.....	108
Table 79:	Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Dose 1	109
Table 80:	Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Dose 1	109
Table 81:	Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Dose 2.....	109
Table 82:	Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Dose 2	109
Table 83:	Listing of Serious Adverse Events	110
Table 84:	Listing of Deaths.....	110
Table 85:	Proportion of Subjects Reporting Laboratory Adverse Events Following the First Dose of Study Product by Treatment Group - Safety Population	111
Table 86:	Biochemistry Laboratory Results by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Uninfected HCV Status*	112
Table 87:	Biochemistry Laboratory Results by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Infected HCV Status*	113
Table 88:	Biochemistry Laboratory Results Related to Vaccination by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Uninfected HCV Status*	114
Table 89:	Biochemistry Laboratory Results Related to Vaccination by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Infected HCV Status*	114
Table 90:	Hematology Laboratory Results by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Uninfected HCV Status*	115
Table 91:	Hematology Laboratory Results by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Infected HCV Status*	116

Table 92: Hematology Laboratory Results Related to Vaccination by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population- Uninfected HCV Status*	117
Table 93: Hematology Laboratory Results Related to Vaccination by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population- Infected HCV Status*	117
Table 94: Biochemistry Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population—Uninfected HCV Status*, Vaccine	118
Table 95: Biochemistry Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population—Uninfected HCV Status*, Placebo	119
Table 96: Biochemistry Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population—Infected HCV Status*, Vaccine	119
Table 97: Biochemistry Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population—Infected HCV Status*, Placebo	119
Table 98: Hematology Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population – Uninfected HCV Status*, Vaccine	120
Table 99: Hematology Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population – Uninfected HCV Status*, Placebo	121
Table 100: Hematology Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population – Infected HCV Status*, Vaccine	121
Table 101: Hematology Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population – Infected HCV Status*, Placebo	121
Table 102: Biochemistry Summary of Laboratory Test Shifts of Laboratory Values from Baseline by Site - Uninfected HCV Status* - Safety Population	122
Table 103: Biochemistry Summary of Laboratory Test Shifts of Laboratory Values from Baseline by Site - Infected HCV Status* - Safety Population	123
Table 104: Summary of Hematology Laboratory Test Shifts of Laboratory Values from Baseline by Site - Uninfected HCV Status* - Safety Population	124
Table 105: Summary of Hematology Laboratory Test Shifts of Laboratory Values from Baseline by Site - Infected HCV Status* - Safety Population	125
Table 106: Maximum Likelihood Odds Ratio Estimates by Biochemistry Laboratory Parameter-Safety Population- 1 month Post-Vaccination 1	126
Table 107: Maximum Likelihood and Odds Ratio Estimates by Biochemistry Laboratory Parameter-Safety Population- 1 month Post-Vaccination 2	126
Table 108: Odds Ratio Estimates by Hematology Laboratory Parameter-Safety Population- 1 month Post-Vaccination 1	127
Table 109: Maximum Likelihood and Odds Ratio Estimates by Hematology Laboratory Parameter-Safety Population- 1 month Post-Vaccination 2	127

Table 110: Listing of Abnormal Laboratory Results - Chemistry.....	128
Table 111: Listing of Abnormal Laboratory Results - Hematology.....	128
Table 112: Number and Percentage of Subjects with Prior and Concurrent Medications by WHO Drug Classification and Treatment Group- Safety Population-All Subjects.....	129
Table 113: Number and Percentage of Subjects with Prior and Concurrent Medications by WHO Drug Classification and Site- Safety Population.....	129
Table 114: Summary of Substance Treatment by Site—Safety Population.....	130
Table 115: Summary of Substance Treatment by Treatment Group—Safety Population.....	131
Table 116: ELISpot Responses by Treatment Group—Immunogenicity Population	132
Table 117: Geometric Mean (GM) and Geometric Mean Fold Rise (GMFR) ELISpot Responses (Across all Pools) with 95% Confidence Intervals by Study Day and Treatment Group—Immunogenicity Population, HCV- Subjects.....	133
Table 118: Geometric Mean (GM) and Geometric Mean Fold Rise (GMFR) ELISpot Responses (Across all Pools) with 95% Confidence Intervals by Study Day and Treatment Group—Immunogenicity Population, HCV+ Subjects.....	133
Table 119: Geometric Mean (GM) and Geometric Mean Fold Rise (GMFR) ELISpot Responses (Across Positive Pools) with 95% Confidence Intervals by Study Day and Treatment Group—Immunogenicity Population, HCV- Subjects	133
Table 120: Geometric Mean (GM) and Geometric Mean Fold Rise (GMFR) ELISpot Responses (Across Positive Pools) with 95% Confidence Intervals by Study Day and Treatment Group—Immunogenicity Population, HCV+ Subjects	133
Table 121: Total Number of Positive Pools by Study Day and Treatment Group— Immunogenicity Population, HCV- Subjects	134
Table 122: Total Number of Positive Pools by Study Day and Treatment Group — Immunogenicity Population, HCV+ Subjects	134
Table 123: Maximum ELISpot Response (Across Positive Pools) by Treatment Group— Immunogenicity Population	135
Table 124: Laboratory Adverse Event Grading Scale-Hematology	136
Table 125: Laboratory Adverse Event Grading Scale-Chemistries.....	137
Table 126: Laboratory Adverse Event Grading Scale-Enzymes	138
Table 127: Laboratory Adverse Event Grading Scale-Glucose.....	138

Section 9.1 Overall Study Design and Plan Description

Section 9.5.1 Efficacy/Immunogenicity and Safety Measurements Assessed and Flow Chart

Table 1: Schedule of Study Procedures for HCV Uninfected Subjects

Groups A and B	S	V					V							
Timeline from enrollment (months)	<-1	0	0	0	0	1	2	2	2	3	4	5	6	7
Timeline from enrollment (days)	<-30	0	3	7	14	30	56	59	63	90	120	150	180	210
Window (days)	-30	0	±2	±2	±7	±7	±7	±2 ^C	+14 ^C	±7	±7	±7	±7	±7
Visit Number	00	1	2	3	4	5	6	7	8	9	10	11	12	13
Review Inclusion/Exclusion criteria	X	X					X							
Informed consent	X													
Behavioral Risk Assessment Questionnaire		X								X			X	
Medical history	X	(X)	(X)	(X)	(X)	(X)	(X)	(X)						
Examine vaccination site		X	X	X	(X)		X	X	X					
Targeted Physical Examination	X	(X)	(X)	(X)	(X)	(X)	(X)	(X)						
Vital Signs (Temp, Pulse, BP)	X	X					X							
Height/Weight	X													
Pregnancy Test*	X	X					X							
Counseling on avoidance of HIV, HCV, and pregnancy	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 ^B	X ^B	X ^B	X ^B
Vaccination		X					X							
Distribute Memory Aid		X					X							
Review Memory Aid			X	X				X	X					
AE/SAE Assessment		X	X	X	X	X	X	X	X	X	X ^A	X ^A	X ^A	X ^A
Urinalysis	X													
Hematology (mL)	9	9			9	9	9		9	9	9			
Biochemistry (mL)	14	14			14	14	14		14	14	14			
IL28B (mL)	5													

Anti-HCV (mL)	5													
HBsAg, anti-HIV (mL)	5													
HCV qualitative viremia (mL)	5					5	5			5	5	5	5	5
HCV quantitative viremia (mL)	5					5	5			5	5	5	5	5
Anti-adenovirus Ab (mL)		X ^D												
HLA typing/genetic studies (mL)		8												
Immunology (mL)		160				160	100			100	160			
Blood per visit (mL)	48	191	0	0	23	193	133	0	123	193	33	10	10	10
Cumulative blood volume (mL)	48	239	239	239	262	455	588	588	711	904	937	947	957	967
Groups A and B (continued)														
Timeline from enrollment (months)	8	9	10	11	12	13	14	15	16	17	18	19	20	
Timeline from enrollment (days)	240	270	300	330	360	390	420	450	480	510	540	570	600	
Window (days)	-±7	±7												
Visit Number	14	15	16	17	18	19	20	21	22	23	24	25	26	Early Termination
Review Inclusion/Exclusion criteria														
Medical history	(X)													
Examine vaccination site														
Targeted Physical Examination	(X)													
Behavioral Risk Assessment Questionnaire		X			X			X			X		X	X
Counseling on avoidance of HIV, HCV, and pregnancy	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Concomitant Medications	X ^B or X ^A													
AE/SAE Assessment	X ^A													
Hematology (mL)			9										9	9
Biochemistry (mL)			14										14	14
Anti-HCV (mL)													5	5
HBsAg, anti-HIV (mL)													5	5
HCV Qualitative viremia (mL)	5	5	5	5	5	5	5	5	5	5	5	5	5	5
HCV Quantitative viremia (mL)	5	5	5	5	5	5	5	5	5	5	5	5	5	5

Anti-adenovirus Ab (mL)					10									
Immunology (mL)	100												100	100
Blood per visit (mL)	110	10	33	10	20	10	10	10	10	10	10	10	143	143
Cumulative blood volume (mL)	1077	1087	1120	1130	1150	1160	1170	1180	1190	1200	1210	1220	1363	

S, screening visit;

V, vaccination visit;

(X), if considered necessary, emphasizing any acute complaint;

A, only SAE's collected;

B, All concomitant medications will be recorded through Day 90 (Day 30 if only receiving 1 vaccination). At visits after Day 90 (Day 30 if only receiving 1 vaccination), only immunosuppressants and medications for the treatment of HCV infection will be recorded;

C, windows dependent on Visit 6, Dose 2

D, Plasma saved from the blood collected for immunology assessments at this visit will be used for anti-adenovirus Ab testing.

* Pregnancy test must be performed and documented as negative within 24 hours prior to each vaccination.

Table 2: Schedule of Study Procedures for Subjects with Confirmed HCV Infection

	HCV+ test										
Timeline from HCV infection (months)	0	1	2	3	4	5	6	7	8	9	
Timeline from first positive HCV Quantitative RNA result (days)	0	30	60	90	120	150	180	210	240	270	
Window (days)		±7	±7	±7	±7	±7	±21	±7	±7	±21	
Visit Number		H01	H02	H03	H04	H05	H06	H07	H08	H09	Early Termination ^G
Review confirmed HCV infection		X	X	X	X	X	X	X	X	X	X
Medical history		(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
Examine vaccination site		(X) ^C									
Targeted Physical Examination		(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)	(X)
Behavioral Risk Assessment Questionnaire		X ^D	X ^D	X ^D	X ^D	X ^D	X ^D	X ^D	X ^D	X ^D	X ^D
Concomitant Medications		X ^E	X ^E	X ^E	X ^E	X ^E	X ^E	X ^E	X ^E	X ^E	X ^E
AE/SAE Assessment		X ^F	X ^F	X ^F	X ^F	X ^F	X ^F	X ^F	X ^F	X ^F	X ^F
Counseling on avoidance of HIV, HCV transmission and reinfection		X	X	X	X	X	X	X	X	X	X
Hematology (mL)		9	9	9	9	9	9	9	9	9	9
Biochemistry (mL)		14	14	14	14	14	14	14	14	14	14
HCV genotyping (mL)		5	5	5	5	5	5	5	5	5	5
Anti-HCV (mL)										5	5
HBsAg, anti-HIV (mL)		5								5	
HCV Quantitative viremia (mL)		5	5	5	5	5	5	5	5	5	5
Immunology (mL)		100	100	100	100	100	100	100		100	100
Blood per visit (mL)		138	133	133	133	133	133	133	33	143	138
Cumulative blood volume (mL) post HCV Infection		138	271	404	537	670	803	936	969	1112	

(X), if considered necessary, emphasizing any acute complaint;

C, Vaccination site is only to be examined at Day 59/63;

D, For confirmed HCV infected subjects Behavioral Risk Assessment Questionnaire is to be administered at Day 90, 180, 270, 360, 450, and 540 (and Early Termination Visit, if conducted) if applicable, as the follow-up period allows; if the subject's follow-up period is extended as a result of confirmed HCV infection, the Behavioral Risk Assessment Questionnaire will be administered at Day 630, 720, 810, and the final study visit, as the follow-up period allows.

E, All concomitant medications will be recorded through Day 90 (Day 30 if only receiving 1 vaccination). At visits after Day 90 (Day 30 if only receiving 1 vaccination), only immunosuppressants and medications for the treatment of HCV infection will be recorded;

F, AE's and SAE's recorded through Day 90. At visits following Day 90, only SAE's recorded.

G, Subjects who become HCV-infected prior to the 2nd dose of vaccine and choose to terminate early will follow the full schedule of tests for visit H09.

Table 3: Subject Disposition by Treatment Group- All Enrolled Subjects

Subject Disposition	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
	n	%	n	%	n	%
Screened	--	--	--	--	x	--
Enrolled/Randomized	x	100	x	100	x	100
Received Vaccination 1 ^a	x	x	x	x	x	x
Received Vaccination 2 ^a	x	x	x	x	x	x
No Confirmed HCV Infection	x	x	x	x	x	x
Confirmed HCV Infection	x	x	x	x	x	x
Completed Follow-up ^b —Subjects without HCV (600 Days from enrollment)	x	x	x	x	x	x
Completed 6 month Follow-up ^b —Subjects with HCV (180 Days from first positive HCV Quantitative RNA result)	x	x	x	x	x	x
Completed Follow-up ^b —Subjects with HCV (270 Days from first positive HCV Quantitative RNA result)	x	x	x	x	x	x
Notes: N=Number of enrolled subjects						
^a Refer to Listing 8 (16.2.5) for treatment compliance.						
^b Refer to Listing 3 (16.2.1) for reasons subjects discontinued or terminated early.						
^c Refer to Listing 1 (16.2.3) for reasons subjects are excluded from the According to Protocol population.						

Table 4: Ineligibility Summary of Screen Failures

Inclusion/Exclusion Category	Inclusion/Exclusion Criterion	Number of Subjects ^a	Percentage of Screened Subjects (%)
Inclusion and Exclusion	Number of subjects failing any eligibility criterion	x	x
Inclusion	Any inclusion criterion	x	x
	[inclusion criterion 1]	x	x
	[inclusion criterion 2]	x	x
	[inclusion criterion 3]	x	x
Exclusion	Any exclusion criterion	x	x
	[exclusion criterion 1]	x	x
	[exclusion criterion 2]	x	x
	[exclusion criterion 3]	x	x
^a More than one criterion may be marked per subject. Denominator for percentages is the total number of subjects screened.			

Table 5: Modified Intent-to-Treat Analysis Populations by Treatment Group

			Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
Analysis Population	Eligibility Category	Reason Subjects Excluded	n	%	n	%	n	%
Modified Intent-to-Treat (mITT) Analysis	Eligible for mITT		x	x	x	x	x	x
	Excluded from mITT	Any Reason	x	x	x	x	x	x
		Did not receive at least one vaccination	x	x	x	x	x	x
		Was HCV infected at the first vaccination	x	x	x	x	x	x
		Did not have sufficient follow-up to be evaluable for efficacy	x	x	x	x	x	x

Note: N=number of enrolled subjects
Treatment group is the treatment group to which a subject was randomized.

Table 6: Safety, According to Protocol, and Immunogenicity Analysis Populations by Treatment Group

Analysis Population	Eligibility Category	Reason Subjects Excluded	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
			n	%	n	%	n	%
Safety Analysis Population	Eligible for Safety		x	x	x	x	x	x
	Excluded from Safety	Any Reason	x	x	x	x	x	x
		Did not Receive at least one vaccination	x	x	x	x	x	x
6 Month According to Protocol (ATP) Analysis Population	Eligible for 6 Month ATP		x	x	x	x	x	x
	Excluded from 6 Month ATP	Any Reason	x	x	x	x	x	x
		Did not receive at least one vaccination	x	x	x	x	x	x
		Was HCV infected at the first vaccination	x	x	x	x	x	x
		Did not have sufficient follow-up to be evaluable for efficacy	x	x	x	x	x	x
		Had major protocol deviations	x	x	x	x	x	x
		Received treatment for acute HCV infection	x	x	x	x	x	x
		Found to have been ineligible at enrollment	x	x	x	x	x	x
		Did not receive both doses of vaccine or control	x	x	x	x	x	x
		Acquired HCV infection prior to receipt of the second vaccination	x	x	x	x	x	x
		Received the wrong (non-randomized) product at either dose	x	x	x	x	x	x
		Received the second dose fewer than 42 days or more than 70 days after the first dose	x	x	x	x	x	x
		Received an immunosuppressant other than inhaled or topical steroids	x	x	x	x	x	x
		Were immunized against another pathogen or received immunoglobulins or other blood products within 14 days of either dose of study vaccine	x	x	x	x	x	x
		Have autoimmune disease	x	x	x	x	x	x
Have a confirmed or suspected immunosuppressive or immunodeficient state	x	x	x	x	x	x		
9 Month According to Protocol (ATP) Analysis Population	Eligible for 9 Month ATP		x	x	x	x	x	x
	Excluded from 9 Month ATP	Any Reason	x	x	x	x	x	x
		Did not receive at least one vaccination	x	x	x	x	x	x
		Was HCV infected at the first vaccination	x	x	x	x	x	x

Analysis Population	Eligibility Category	Reason Subjects Excluded	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
			n	%	n	%	n	%
		Did not have sufficient follow-up to be evaluable for efficacy	x	x	x	x	x	x
		Had major protocol deviations	x	x	x	x	x	x
		Received treatment for acute HCV infection	x	x	x	x	x	x
		Found to have been ineligible at enrollment	x	x	x	x	x	x
		Did not receive both doses of vaccine or control	x	x	x	x	x	x
		Acquired HCV infection prior to receipt of the second vaccination	x	x	x	x	x	x
		Received the wrong (non-randomized) product at either dose	x	x	x	x	x	x
		Received the second dose fewer than 42 days or more than 70 days after the first dose	x	x	x	x	x	x
		Received an immunosuppressant other than inhaled or topical steroids	x	x	x	x	x	x
		Were immunized against another pathogen or received immunoglobulins or other blood products within 14 days of either dose of study vaccine	x	x	x	x	x	x
		Have autoimmune disease	x	x	x	x	x	x
		Have a confirmed or suspected immunosuppressive or immunodeficient state	x	x	x	x	x	x
		Immunogenicity Analysis Population	Eligible for Immunogenicity		x	x	x	x
Excluded from Immunogenicity	Any Reason		x	x	x	x	x	x
	Did not receive at least one vaccination		x	x	x	x	x	x
	Did not have immunogenicity endpoint data available		x	x	x	x	x	x

Note: N=number of enrolled subjects; Treatment group is the actual treatment a subject received

Implementation Note: If no subjects received the incorrect treatment, then Tables 5 and 6 will be combined into a single table.

Table 7: Distribution of Protocol Deviations by Category, Type, and Treatment Group

Category	Deviation Type	Vaccine (N=X)			Placebo (N=X)			All Subjects (N=X)		
		# of Subj.	%	# of Dev.	# of Subj.	%	# of Dev.	# of Subj.	%	# of Dev.
Eligibility/enrollment	Any type	x	x	x	x	x	x	x	x	x
	Did not meet inclusion criterion	x	x	x	x	x	x	x	x	x
	Met exclusion criterion	x	x	x	x	x	x	x	x	x
	ICF not signed prior to study procedures	x	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x	x
Treatment administration schedule	Any type	x	x	x	x	x	x	x	x	x
	Out of window visit	x	x	x	x	x	x	x	x	x
	Missed visit/visit not conducted	x	x	x	x	x	x	x	x	x
	Missed treatment administration	x	x	x	x	x	x	x	x	x
	Delayed treatment administration	x	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x	x
Follow-up visit schedule	Any type	x	x	x	x	x	x	x	x	x
	Out of window visit	x	x	x	x	x	x	x	x	x
	Missed visit/visit not conducted	x	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x	x
Protocol procedure/assessment	Any type	x	x	x	x	x	x	x	x	x
	Incorrect version of ICF signed	x	x	x	x	x	x	x	x	x
	Blood not collected	x	x	x	x	x	x	x	x	x
	Urine not collected	x	x	x	x	x	x	x	x	x
	Other specimen not collected	x	x	x	x	x	x	x	x	x
	Specimen result not obtained	x	x	x	x	x	x	x	x	x
	Required procedure not conducted	x	x	x	x	x	x	x	x	x
	Required procedure done incorrectly	x	x	x	x	x	x	x	x	x
	Study product temperature excursion	x	x	x	x	x	x	x	x	x
	Specimen temperature excursion	x	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x	x
Treatment administration	Any type	x	x	x	x	x	x	x	x	x
	Required procedure done incorrectly	x	x	x	x	x	x	x	x	x
	Study product temperature excursion	x	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x	x
Blinding policy/procedure	Any type	x	x	x	x	x	x	x	x	x
	Treatment unblinded	x	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x	x

Notes: The denominator for percentages is based on the number of subjects enrolled.
 # of Subj = the number of subjects that reported at least one protocol deviation in the category specified.
 # of Dev = the total number of protocol deviations reported for the category specified.

Table 8: Vaccine Efficacy Against 6-Month Chronic HCV Infection by Treatment Group and Analysis Population

Analysis	Population	Number of Chronic HCV Infections				Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine		Placebo				
		Number of Subjects n	Total Subjects N	Number of Subjects n	Total Subjects N			
Primary Efficacy Analysis	ATP population	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
Secondary Efficacy Analysis	mITT population	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
Sensitivity Analyses	ATP population – Fine-Gray	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	mITT population – Fine-Gray	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	ATP population – Covariate-Adjusted	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	mITT population – Covariate-Adjusted	x	x	x	x	x.xx	x.xx, x.xx	0.xxx

Note: N = Number of subjects in specific treatment group.
 [1] Vaccine efficacy is obtained from stratified/covariate-adjusted Cox regression.
 [2] 95% CI = 95% confidence interval obtained from stratified/covariate-adjusted Cox regression.
 [3] P-value = p-value from score test comparing treatment groups obtained from Cox regression (log-rank for Primary and Secondary analyses).

Table 9: Stratum-Specific Vaccine Efficacy Against 6-Month Chronic HCV Infection by Treatment Group and Analysis Population

Analysis Population		Number of Chronic HCV Infections				Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine		Placebo				
		Number of Subjects n	Total Subjects N	Number of Subjects n	Total Subjects N			
ATP	All subjects	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
mITT	All subjects	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
ATP- Fine-Gray	All subjects	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
mITT -Fine Gray	All subjects	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x	x	x.xx	x.xx, x.xx	0.xxx

Note: N = Number of subjects in specific treatment group.
 [1] Vaccine efficacy is obtained from stratified Cox regression.
 [2] 95% CI = 95% confidence interval obtained from stratified Cox regression.
 [3] P-value = p-value from score test comparing treatment groups obtained from stratified Cox regression.

Table 10: Vaccine Efficacy Against Incident HCV Infection by Treatment Group and Analysis Population

Analysis	Analysis Population	Number of Incident HCV Infections				Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine		Placebo				
		Number of Subjects n	Total Subjects N	Number of Subjects n	Total Subjects N			
Primary Efficacy Analysis	ATP population	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
Secondary Efficacy Analysis	mITT population	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
Sensitivity Efficacy Analysis	ATP population	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	mITT population	x	x	x	x	x.xx	x.xx, x.xx	0.xxx

Note: N = Number of subjects in specific treatment group.
 [1] Vaccine efficacy is obtained from stratified Cox regression.
 [2] 95% CI = 95% confidence interval obtained from stratified Cox regression.
 [3] P-value = p-value from score test comparing treatment groups obtained from stratified Cox regression (log-rank).
 Sensitivity Efficacy Analysis is the interval censored stratified Cox model

Table 11: Stratum-Specific Vaccine Efficacy Against Incident HCV Infection by Treatment Group and Analysis Population

Analysis Population		Number of Incident HCV Infections				Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine		Placebo				
		Number of Subjects n	Total Subjects N	Number of Subjects n	Total Subjects N			
ATP Population	All subjects	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
mITT Population	All subjects	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
ATP Population – Interval-Censored	All subjects	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
mITT Population – Interval-Censored	All subjects	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x	x	x.xx	x.xx, x.xx	0.xxx

Note: N = Number of subjects in specific treatment group.

[1] Vaccine efficacy is obtained from stratified Cox regression.

[2] 95% CI = 95% confidence interval obtained from stratified Cox regression.

[3] P-value = p-value from score test comparing treatment groups obtained from stratified Cox regression.

Tables with similar format to Tables 10 and 11, respectively:

Table 12: Vaccine Efficacy Against Incident HCV Infection (via anti-HCV Testing) by Treatment Group and Analysis Population

Table 13: Stratum-Specific Vaccine Efficacy Against Incident HCV Infection (via anti-HCV Testing) by Treatment Group and Analysis Population

Table 14: Vaccine Efficacy Against 9-Month Chronic HCV Infection by Treatment Group and Analysis Population

Analysis	Analysis Population	Number of Chronic HCV Infections				Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine		Placebo				
		Number of Subjects n	Total Subjects N	Number of Subjects n	Total Subjects N			
Primary Efficacy Analysis	ATP population[foot]	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
Secondary Efficacy Analysis	mITT population[foot]	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
Sensitivity Analyses	ATP population – Fine-Gray	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	mITT population – Fine-Gray	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	ATP population – Covariate-Adjusted							
	mITT population – Covariate-Adjusted							

Note: N = Number of subjects in specific treatment group.

[1] Vaccine efficacy is obtained from stratified/covariate-adjusted Cox regression.

[2] 95% CI = 95% confidence interval obtained from stratified/covariate-adjusted Cox regression.

[3] P-value = p-value from score test comparing treatment groups obtained from Cox regression (log-rank test for Primary and Secondary analyses).

Table 15: Stratum-Specific Vaccine Efficacy Against 9-Month Chronic HCV Infection by Treatment Group and Analysis Population

Analysis Population		Number of Chronic HCV Infections		Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine	Placebo			
ATP Population	All subjects	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x.xx	x.xx, x.xx	0.xxx
mITT Population	All subjects	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x.xx	x.xx, x.xx	0.xxx
ATP Population – Fine-Gray	All subjects	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x.xx	x.xx, x.xx	0.xxx
mITT Population – Fine-Gray	All subjects	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x.xx	x.xx, x.xx	0.xxx

Note: N = Number of subjects in specific treatment group.

[1] Vaccine efficacy is obtained from stratified Cox regression.

[2] 95% CI = 95% confidence interval obtained from stratified Cox regression.

[3] P-value = p-value from log-rank test comparing treatment groups obtained from stratified Cox regression.

Table 16: Geometric Mean (GM) HCV RNA Concentrations with 95% Confidence Intervals by Study Day and Treatment Group—According-To-Protocol Population

Time Point (Months from HCV Infection)	Statistic	Vaccine (N=X)	Placebo (N=X)
Incident HCV Infection	n	x	x
	GM	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
1 Month	n	x	x
	GM	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
2 Months	n	x	x
	GM	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
...			

Note: N = Number of subjects in specific treatment group, n = number of HCV-infected subjects with sample collected at the particular time point.

Tables with similar format:

Table 17: Geometric Mean (GM) HCV RNA Concentrations with 95% Confidence Intervals by Study Day and Treatment Group—mITT Population

Table 18: Geometric Mean Fold Rise (GMFR) HCV RNA Concentrations by Study Day and Treatment Group—According-To-Protocol Population

Time Point (Months from Incident HCV Infection)	Statistic	Vaccine (N=X)	Placebo (N=X)
1 Month	n	x	x
	GMFR ^a	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
2 Months	n	x	x
	GMFR ^a	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
...			

Note: N = Number of subjects in specific treatment group, n = number of HCV-infected subjects with sample collected at the particular time point.

^a GMFR represents the geometric mean fold rise in HCV RNA concentration compared to the incident HCV infection sample.

Tables with similar format:

Table 19: Geometric Mean Fold Rise (GMFR) HCV RNA Concentrations by Study Day and Treatment Group—mITT Population

Table 20: Geometric Mean (GM) Peak HCV RNA Concentrations with 95% Confidence Intervals by Treatment Group— According-To-Protocol Population

Statistic	Vaccine (N=X)	Placebo (N=X)	P-value
n	x	x	0.xxx
GM	x.x	x.x	
95% CI	x.x, x.x	x.x, x.x	

Notes: N = Number of subjects in specific treatment group
n = number of HCV-infected subjects with HCV RNA data available after incident infection in the analysis population.
P-value = p-value from two-sided t-test

Tables with similar format:

Table 21: Geometric Mean (GM) Peak HCV RNA Concentrations with 95% Confidence Intervals by Treatment Group— mITT Population

Table 22: Vaccine Efficacy Against Duration of Incident HCV Infection by Treatment Group and Analysis Population

Analysis	Analysis Population	Number of Incident HCV Infections		Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine (N=X)	Placebo (N=X)			
Primary Efficacy Analysis	ATP population	x	x	x.xx	x.xx, x.xx	0.xxx
Secondary Efficacy Analysis	mITT population	x	x	x.xx	x.xx, x.xx	0.xxx

Notes: N = Number of subjects in specific treatment group.
 [1] Vaccine efficacy is obtained from stratified Cox regression.
 [2] 95% CI = 95% confidence interval obtained from stratified Cox regression.
 [3] P-value = p-value from score test comparing treatment groups obtained from stratified Cox regression (log-rank test).

Table 23: Stratum-Specific Vaccine Efficacy Against Duration of Incident HCV Infection by Treatment Group and Analysis Population

Analysis		Number of Incident HCV Infections		Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine (N=X)	Placebo (N=X)			
ATP Population	All subjects	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x.xx	x.xx, x.xx	0.xxx
mITT Population	All subjects	x	x	x.xx	x.xx, x.xx	0.xxx
	Males	x	x	x.xx	x.xx, x.xx	0.xxx
	Females	x	x	x.xx	x.xx, x.xx	0.xxx
	CC	x	x	x.xx	x.xx, x.xx	0.xxx
	CT/TT	x	x	x.xx	x.xx, x.xx	0.xxx

Note: N = Number of subjects in specific treatment group.
 [1] Vaccine efficacy is obtained from stratified Cox regression.
 [2] 95% CI = 95% confidence interval obtained from stratified Cox regression.
 [3] P-value = p-value from score test comparing treatment groups obtained from stratified Cox regression.

Table 24: Summary Statistics of Duration of Incident HCV Infection by Treatment Group and Analysis Population

Statistic	ATP Population		mITT Population	
	Vaccine (N=X)	Placebo (N=X)	Vaccine (N=X)	Placebo (N=X)
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

Table 25: Vaccine Efficacy Against 6-Month Chronic HCV Genotype 1 Infection by Treatment Group and Analysis Population

Analysis	Analysis Population	Number of Chronic HCV Infections		Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine (N=X)	Placebo (N=X)			
Primary Efficacy Analysis	ATP population	x	x	x.xx	x.xx, x.xx	0.xxx
Secondary Efficacy Analysis	mITT population	x	x	x.xx	x.xx, x.xx	0.xxx

Note: N = Number of subjects in specific treatment group.
 [1] Vaccine efficacy is obtained from Fine-Gray proportional hazards.
 [2] 95% CI = 95% confidence interval obtained from Cox regression.
 [3] P-value = p-value from log-rank test comparing treatment groups obtained from Cox regression.

Tables with similar format:

Table 26: Vaccine Efficacy Against 6-Month Chronic HCV Genotype non-1 Infection by Treatment Group and Analysis Population

Table 27: Summary of Study Rates by Treatment Group- All Enrolled Subjects

Rate	Vaccine (N=X)	Placebo (N=X)	All Subjects (N=X)
Enrollment Rate	xx.x / month	xx.x / month	xx.x / month
Early Discontinuation Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Loss from mITT Population Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Loss from ATP Population Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
HCV + Incidence Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
HCV + Incidence Rate – mITT Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
HCV + Incidence Rate – ATP Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + Incidence Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + Incidence Rate – mITT Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + Incidence Rate – ATP Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype 1) Incidence Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype 1) Incidence Rate – mITT Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype 1) Incidence Rate – ATP Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype non-1) Incidence Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype non-1) Incidence Rate – mITT Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype non-1) Incidence Rate – ATP Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Note: PYO=Person-years of observation N=Number of subjects enrolled in the respective treatment group			

Table 28: Summary of Study Rates by Site-All Enrolled Subjects

Rate	Johns Hopkins University (N=X)	University of California, San Francisco (N=X)	University of New Mexico (N=X)	All Subjects (N=X)
Enrollment Rate	xx.x / month	xx.x / month	xx.x / month	xx.x / month
Early Discontinuation Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Loss from mITT Population Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Loss from ATP Population Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
HCV + Incidence Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
HCV + Incidence Rate – mITT Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
HCV + Incidence Rate – ATP Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + Incidence Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + Incidence Rate – mITT Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + Incidence Rate – ATP Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype 1) Incidence Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype 1) Incidence Rate – mITT Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype 1) Incidence Rate – ATP Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype non-1) Incidence Rate	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype non-1) Incidence Rate – mITT Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Chronic HCV + (Genotype non-1) Incidence Rate – ATP Population	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO	xx.x / 100 PYO
Note: PYO=Person-years of observation N=Number of subjects enrolled in the respective site				

Table 29: Vaccine Efficacy Against 6-Month Chronic HCV Infection as Determined by the Endpoint Review Committee by Treatment Group and Analysis Population

Analysis	Population	Number of Chronic HCV Infections				Vaccine Efficacy [1]	95 % CI for Vaccine Efficacy [2]	P-value [3]
		Vaccine		Placebo				
		Number of Subjects n	Total Subjects N	Number of Subjects n	Total Subjects N			
Primary Efficacy Analysis	ATP population	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
Secondary Efficacy Analysis	mITT population	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
Sensitivity Analyses	ATP population – Fine-Gray	x	x	x	x	x.xx	x.xx, x.xx	0.xxx
	mITT population – Fine-Gray	x	x	x	x	x.xx	x.xx, x.xx	0.xxx

Note: N = Number of subjects in specific treatment group.
 [1] Vaccine efficacy is obtained from stratified Cox regression.
 [2] 95% CI = 95% confidence interval obtained from stratified Cox regression.
 [3] P-value = p-value from score test comparing treatment groups obtained from stratified Cox regression (log-rank test).

Tables with similar format:

Table 30: Vaccine Efficacy Against 9-Month Chronic HCV Infection as Determined by the Endpoint Review Committee by Treatment Group and Analysis Population

Table 31: Summary of Categorical Demographic and Baseline Characteristics by Site- All Enrolled Subjects

Variable	Characteristic	Johns Hopkins University (N = X)		University of California, San Francisco (N = X)		University of New Mexico (N = X)		All Subjects (N = X)	
		n	%	n	%	n	%	n	%
Sex	Male	x	x	x	x	x	x	x	x
	Female	x	x	x	x	x	x	x	x
Ethnicity	Not Hispanic or Latino	x	x	x	x	x	x	x	x
	Hispanic or Latino	x	x	x	x	x	x	x	x
	Not Reported	x	x	x	x	x	x	x	x
	Unknown	x	x	x	x	x	x	x	x
Race	American Indian or Alaska Native	x	x	x	x	x	x	x	x
	Asian	x	x	x	x	x	x	x	x
	Native Hawaiian or Other Pacific Islander	x	x	x	x	x	x	x	x
	Black or African American	x	x	x	x	x	x	x	x
	White	x	x	x	x	x	x	x	x
	Multi-Racial	x	x	x	x	x	x	x	x
	Unknown	x	x	x	x	x	x	x	x
IL28B	CC	x	x	x	x	x	x	x	x
	CT/TT	x	x	x	x	x	x	x	x

Notes: N=number of enrolled subjects

Table 32: Summary of Categorical Demographic and Baseline Characteristics by Treatment Group-All Enrolled Subjects

Variable	Characteristic	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
		n	%	n	%	n	%
Sex	Male	x	x	x	x	x	x
	Female	x	x	x	x	x	x
Ethnicity	Not Hispanic or Latino	x	x	x	x	x	x
	Hispanic or Latino	x	x	x	x	x	x
	Not Reported	x	x	x	x	x	x
	Unknown	x	x	x	x	x	x
Race	American Indian or Alaska Native	x	x	x	x	x	x
	Asian	x	x	x	x	x	x
	Native Hawaiian or Other Pacific Islander	x	x	x	x	x	x
	Black or African American	x	x	x	x	x	x
	White	x	x	x	x	x	x
	Multi-Racial	x	x	x	x	x	x
	Unknown	x	x	x	x	x	x
IL28B	CC	x	x	x	x	x	x
	CT/TT	x	x	x	x	x	x

N=number of enrolled subjects

Tables with similar format:

Table 33: Summary of Categorical Demographic and Baseline Characteristics by Treatment Group-mITT Population

Table 34: Summary of Categorical Demographic and Baseline Characteristics by Treatment Group-ATP Population

Table 35: Summary of Continuous Demographic and Baseline Characteristics by Site- All Enrolled Subjects

Variable	Statistic	Johns Hopkins University (N=X)	University of California, San Francisco (N=X)	University of New Mexico (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	x.x	x.x
	Minimum	x	x	x	x
	Maximum	x	x	x	x

Notes: N=number of enrolled subjects

Table 36: Summary of Continuous Demographic and Baseline Characteristics by Treatment Group- All Enrolled Subjects

Variable	Statistic	Vaccine (N=X)	Placebo (N=X)	All Subjects (N=X)
Age	Mean	x.x	x.x	x.x
	Standard Deviation	x.x	x.x	x.x
	Median	x.x	x.x	x.x
	Minimum	x	x	x
	Maximum	x	x	x
BMI	Mean	x.x	x.x	x.x
	Standard Deviation	x.x	x.x	x.x
	Median	x.x	x.x	x.x
	Minimum	x	x	x
	Maximum	x	x	x
Note: N=number of enrolled subjects				

Table 37: Summary of Subjects with Pre-Existing Medical Conditions by MedDRA System Organ Class and Treatment Group-Safety Population-All Subjects

MedDRA System Organ Class	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
	n	%	n	%	n	%
Any SOC	x	x	x	x	x	x
[SOC 1]	x	x	x	x	x	x
[SOC 2]	x	x	x	x	x	x

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

Tables with similar format:

Table 38: Summary of Subjects with Pre-Existing Medical Conditions by MedDRA System Organ Class and Site-Safety PopulationJohns

Table 39: Dates of First Treatment by Site – Safety Population

[Note: Dates will be categorized by calendar year.]

Dates of Dosing	Johns Hopkins University (N = X)		University of California, San Francisco (N = X)		University of New Mexico (N = X)		All Subjects (N = X)	
	n	%	n	%	n	%	n	%
DDMMMYYYY-DDMMMYYYY	x	x	x	x	x	x	x	x
DDMMMYYYY-DDMMMYYYY	x	x	x	x	x	x	x	x
DDMMMYYYY-DDMMMYYYY	x	x	x	x	x	x	x	x
DDMMMYYYY-DDMMMYYYY	x	x	x	x	x	x	x	x

Note: N=Number of subjects in the safety population

Table 40: Dates of First Treatment by Treatment Group - Safety Population

[Note: Dates will be categorized by calendar year.]

Dates of Dosing	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
	n	%	n	%	n	%
DDMMMYYYY-DDMMMYYYY	x	x	x	x	x	x
DDMMMYYYY-DDMMMYYYY	x	x	x	x	x	x
DDMMMYYYY-DDMMMYYYY	x	x	x	x	x	x
DDMMMYYYY-DDMMMYYYY	x	x	x	x	x	x

Note: N=Number of subjects in the safety population

Table 41: Number and Percentage of Subjects Experiencing Solicited Events with 95% Confidence Intervals by Symptom, Dose, and Treatment Group-Safety Population-Post Either Dose

		Post Either Dose								
Category	Solicited Adverse Event	Vaccine (N=X)			Placebo (N=X)			All Subjects (N=X)		
		n	%	95% CI	n	%	95% CI	n	%	95% CI
Solicited Adverse Events	Any Solicited Adverse Event	x	x	x, x	x	x	x, x	x	x	x, x
Solicited Local Adverse Events	Any Local Adverse Event	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
	Tenderness	x	x	x, x	x	x	x, x	x	x	x, x
	Warmth	x	x	x, x	x	x	x, x	x	x	x, x
	Erythema	x	x	x, x	x	x	x, x	x	x	x, x
	Induration	x	x	x, x	x	x	x, x	x	x	x, x
Solicited Systemic Adverse Events	Any Systemic Adverse Event	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
	Headache	x	x	x, x	x	x	x, x	x	x	x, x
	Malaise/Fatigue	x	x	x, x	x	x	x, x	x	x	x, x
	Myalgia/Body Ache	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
	Vomiting	x	x	x, x	x	x	x, x	x	x	x, x
	Chills	x	x	x, x	x	x	x, x	x	x	x, x
	Abdominal Pain	x	x	x, x	x	x	x, x	x	x	x, x
	Arthralgia/Joint Pain	x	x	x, x	x	x	x, x	x	x	x, x

Notes: N = number of subjects in the Safety Analysis Population who received the specified treatment.
This table presents number and percentage of subjects.
A subject is only counted once per solicited adverse event.
Confidence intervals are 95% Blaker confidence intervals

Tables with similar format:

Table 42: Number and Percentage of Subjects Experiencing Solicited Events with 95% Confidence Intervals by Symptom, Dose, and Treatment Group-Safety Population-Post Dose 1

Table 43: Number and Percentage of Subjects Experiencing Solicited Events with 95% Confidence Intervals by Symptom, Dose, and Treatment Group-Safety Population-Post Dose 2

Table 44: Comparison of the Proportion of Subjects Experiencing Any Grade 3 Solicited Adverse Events in the 8 Days After Each Vaccination by Dose and Treatment Group - Safety Population

Post Dose Number	Treatment Group	Number of Subjects Experiencing Grade 3 Solicited Events n	Number of Subjects N	Proportion of Subjects Experiencing Grade 3 Solicited Events	Proportion of Subjects Experiencing Grade 3 Solicited Events 95% CI ¹	Difference in Proportion of Subjects Experiencing Grade 3 Solicited Events between Vaccine and Placebo %	Difference in Proportion of Subjects Experiencing Grade 3 Solicited Events between Vaccine and Placebo 95% CI ¹	P-Value ²
Dose 1	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx	0.xxx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--	
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--	
Dose 2	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx	0.xxx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--	
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--	
Either Dose	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx	0.xxx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--	
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--	

Note: The denominator for proportions is based on the number of subjects enrolled in the respective treatment group for each Dose Number

¹Confidence intervals are 95% Blaker confidence intervals

²P-value is from the two-sided Fisher's exact test.

Tables with similar format:

Table 45: Comparison of the Proportion of Subjects Experiencing Grade 3 Solicited Local Adverse Events in the 8 Days After Each Vaccination by Dose and Treatment Group - Safety Population

Table 46: Comparison of the Proportion of Subjects Experiencing Grade 3 Solicited Systemic Adverse Events in the 8 Days After Each Vaccination by Dose and Treatment Group - Safety Population

Table 47: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group- Safety Population- Post Either Dose, HCV Uninfected*

Post Either Dose, HCV Uninfected* (N=X)										
Symptom	Severity	Vaccine (N=X)			Placebo (N=X)			All Subjects (N=X)		
		n	%	95% CI	n	%	95% CI	n	%	95% CI
Any Symptom	None	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
	Moderate	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
Local Symptoms										
Any Local Symptom	None	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
	Moderate	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
Pain	None	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
	Moderate	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
Tenderness	None	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
	Moderate	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
Warmth	None	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
	Moderate	x	x	x, x	x	x	x, x	x	x	x, x
	Severe	s	x	x, x	x	x	x, x	x	x	x, x
Erythema	None	x	x	x, x	x	x	x, x	x	x	x, x

Post Either Dose, HCV Uninfected* (N=X)										
Symptom	Severity	Vaccine (N=X)			Placebo (N=X)			All Subjects (N=X)		
		n	%	95% CI	n	%	95% CI	n	%	95% CI
	Mild	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
	Severe	x	x	x, x	x	x	x, x	x	x	x, x
Induration	None	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
	Moderate	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
Systemic Symptoms										
Any Systemic Symptom	None	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
	Moderate	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
Elevated Oral Temperature	None	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
	Moderate	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
Headache	None	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
	Moderate	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
Malaise/Fatigue	None	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
	Moderate	x	x	x, x	x	x	x, x	x	x	x, x
	Severe	s	x	x, x	x	x	x, x	x	x	x, x

Post Either Dose, HCV Uninfected* (N=X)										
Symptom	Severity	Vaccine (N=X)			Placebo (N=X)			All Subjects (N=X)		
		n	%	95% CI	n	%	95% CI	n	%	95% CI
Myalgia/Body Ache	None	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
	Moderate	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
Nausea	None	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
	Moderate	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
Vomiting	None	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
	Moderate	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
Chills	None	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
	Moderate	x	x	x, x	x	x	x, x	x	x	x, x
	Severe	s	x	x, x	x	x	x, x	x	x	x, x
Abdominal Pain	None	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
	Moderate	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
Arthralgia/Joint Pain	None	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
	Moderate	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

Post Either Dose, HCV Uninfected* (N=X)										
Symptom	Severity	Vaccine (N=X)			Placebo (N=X)			All Subjects (N=X)		
		n	%	95% CI	n	%	95% CI	n	%	95% CI
Note: N = Number of subjects in the Safety Population who received the specified dose. Severity is the maximum severity reported over all solicited symptoms post dosing for each subject. * Uninfected HCV Status: all laboratory results collected prior to confirmed HCV infection are summarized The denominator for percentages is based on the number of subjects enrolled in the respective treatment group and Safety population. Confidence intervals are 95% Blaker Confidence Intervals										

Tables with similar format:

Table 48: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population -Post Either Dose, HCV Infected*

Programming Notes:

- Footnote will read “*Infected HCV Status: all events collected after confirmed HCV infection and during HCV cohort are summarized”

Table 49: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population -Post Dose 1, HCV Uninfected*

Table 50: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population -Post Dose 1, HCV Infected*

Programming Notes:

- Footnote will read “*Infected HCV Status: all events collected after confirmed HCV infection and during HCV cohort are summarized”

Table 51: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population -Post Dose 2, HCV Uninfected*

Table 52: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Maximum Severity, and Treatment Group-Safety Population -Post Dose 2, HCV Infected

Programming Notes:

- Footnote will read “*Infected HCV Status: all events collected after confirmed HCV infection and during HCV cohort are summarized”

Table 53: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, Dose, Day Post Dosing, and Treatment Group-Safety Population-Vaccine, Post Dose 1

Vaccine, Post Either Dose (N=X)																			
Symptom	Severity	Pre-Dose		Post-Dose		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7	
		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
	Mild	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
	Severe	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
Local Symptoms																			
Any Local Symptom	None	-	-	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
	Moderate	-	-	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
	Not Reported	-	-	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
	Mild	-	-	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
	Severe	-	-	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
Warmth	None	-	-	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
	Moderate	-	-	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
	Not Reported	-	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Erythema	None	-	-	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Vaccine, Post Either Dose (N=X)																				
Symptom	Severity	Pre-Dose		Post-Dose		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7		
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	
	Mild	-	-	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
	Severe	-	-	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
Induration	None	-	-	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
	Moderate	-	-	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
	Not Reported	-	-	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
	Mild	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
	Severe	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
Elevated Oral Temperature	None	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
	Moderate	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
	Not Reported	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
	Mild	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
	Severe	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Vaccine, Post Either Dose (N=X)																			
Symptom	Severity	Pre-Dose		Post-Dose		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
	Not Reported	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Malaise/Fatigue	None	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
	Moderate	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
	Not Reported	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Myalgia/Body Ache	None	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
	Moderate	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
	Not Reported	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
	Mild	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
	Severe	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
Vomiting	None	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
	Moderate	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
	Not Reported	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Chills	None	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
	Moderate	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Vaccine, Post Either Dose (N=X)																			
Symptom	Severity	Pre-Dose		Post-Dose		Day 1		Day 2		Day 3		Day 4		Day 5		Day 6		Day 7	
		n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
	Severe	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
Abdominal Pain	None	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
	Moderate	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
	Not Reported	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Arthralgia/Joint Pain	None	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
	Moderate	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
	Not Reported	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 Population who received the specified dose. Severity is the maximum severity reported post dosing for each subject for each day.
Local Symptoms are not collected pre-dose

Tables with similar format:

Table 54: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, Dose, Day Post Dosing, and Treatment Group-Safety Population- Placebo, Post Dose 1

Table 55: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, Dose, Day Post Dosing, and Treatment Group-Safety Population- Vaccine, Post Dose 2

Table 56: Number and Percentage of Subjects Experiencing Solicited Events by Symptom, Severity, Dose, Day Post Dosing, and Treatment Group-Safety Population- Placebo, Post Dose 2

Table 57: Number and Percentage of Subjects Experiencing Solicited Events for Dose 1 Compared with Dose 2 by Treatment Group

Treatment Group		Dose 2 – Subjects with No Symptoms n (%)	Dose 2 – Subjects with Mild or Greater Symptoms n (%)	Dose 2 – Total Number of Subjects n (%)
Local Symptoms				
Vaccine	Dose 1 Subject with No Symptoms	x (x)	x (x)	x (x)
	Dose 1 Subjects with Mild or Greater Symptoms	x (x)	x (x)	x (x)
	Dose 1 Total Number of Subjects	x (x)	x (x)	x (100)
Placebo	Subject with No Symptoms	x (x)	x (x)	x (x)
	Subjects with Mild or Greater Symptoms	x (x)	x (x)	x (x)
	Total Number of Subjects	x (x)	x (x)	x (100)
Systemic Symptoms				
Vaccine	Dose 1 Subjects with No Symptoms	x (x)	x (x)	x (x)
	Dose 1 Subjects with Mild or Greater Symptoms	x (x)	x (x)	x (x)
	Dose 1 Total Number of Subjects	x (x)	x (x)	x (100)
Placebo	Dose 1 Subjects with No Symptoms	x (x)	x (x)	x (x)
	Dose 1 Subjects with Mild or Greater Symptoms	x (x)	x (x)	x (x)
	Dose Total Number of Subjects	x (x)	x (x)	x (100)
Note: Denominators for percentages are the number of subjects in the safety population who received the first and second dose. Subjects who did not get the second dose are not included in this table.				

Section 14.3.1.2 Unsolicited Adverse Events

Table 58: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events with 95% Confidence Intervals by MedDRA System Organ Class and Preferred Term, Dose Number, and Treatment Group-Safety Population-Post Either Dose

Post Either Dose										
MedDRA System Organ Class	MedDRA Preferred Term	Vaccine (N=X)			Placebo (N=X)			All Subjects (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
[SOC 1]	Any PT	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
	[PT 2]	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
	[PT 1]	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

Notes: N = number of subjects in the Safety Analysis Population who received the specified treatment.
A subject is only counted once per PT/timepoint.

Tables with similar format:

Table 59: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events with 95% Confidence Intervals by MedDRA System Organ Class and Preferred Term, Dose Number, and Treatment Group- Safety Population-Post Dose 1

Table 60: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events with 95% Confidence Intervals by MedDRA System Organ Class and Preferred Term, Dose Number, and Treatment Group-Safety Population-Post Dose 2

Table 61: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Either Dose

Post Either Dose											
			All Subjects (N = X)								
			Related			Not Related			Total		
			n	%	Freq	n	%	Freq	n	%	Freq
Any SOC	Any PT	Any Severity	x	x	x	x	x	x	x	x	x
		Mild	x	x	x	x	x	x	x	x	x
		Moderate	x	x	x	x	x	x	x	x	x
		Severe	x	x	x	x	x	x	x	x	x
		Life Threatening	x	x	x	x	x	x	x	x	x
[SOC 1]	Any PT	Any Severity	x	x	x	x	x	x	x	x	x
		Mild	x	x	x	x	x	x	x	x	x
		Moderate	x	x	x	x	x	x	x	x	x
		Severe	x	x	x	x	x	x	x	x	x
		Life Threatening	x	x	x	x	x	x	x	x	x
	[PT 1]	Any Severity	x	x	x	x	x	x	x	x	x
		Mild	x	x	x	x	x	x	x	x	x
		Moderate	x	x	x	x	x	x	x	x	x
		Severe	x	x	x	x	x	x	x	x	x
		Life Threatening	x	x	x	x	x	x	x	x	x

Notes: N = Number of subjects in the Safety Analysis Population
For severity, a subject is counted once per preferred term and is summarized according to their highest severity.

Table 62: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Either Dose

Post Either Dose (N=X)																				
			Vaccine (N = X)									Placebo (N = X)								
			Related			Not Related			Total			Related			Not Related			Total		
			n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq
Any SOC	Any PT	Any Severity	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
		Moderate	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
		Life Threatening	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
[SOC 1]	Any PT	Any Severity	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
		Moderate	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
		Life Threatening	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	[PT 1]	Any Severity	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
		Moderate	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
		Life Threatening	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Notes: N = Number of subjects in the Safety Analysis Population
For severity, a subject is counted once per preferred term and is summarized according to their highest severity.

Tables with similar format:

Table 63: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Dose 1

Table 64: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Dose 1

Table 65: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Dose 2

Table 66: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Dose 2

Table 67: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Site-Safety Population

Johns Hopkins University (N=X)																				
			Vaccine (N = X)									Placebo (N = X)								
			Related			Not Related			Total			Related			Not Related			Total		
			n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq
Any SOC	Any PT	Any Severity	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
		Moderate	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
		Life Threatening	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
[SOC 1]	Any PT	Any Severity	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
		Moderate	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
		Life Threatening	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	[PT 1]	Any Severity	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
		Moderate	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
		Life Threatening	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Notes: N = Number of subjects in the Safety Analysis Population
For severity, a subject is counted once per preferred term and is summarized according to their highest severity.

Tables with similar format:

Table 68: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Site-Safety Population, University of California, San Francisco

Table 69: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Site-Safety Population, University of New Mexico

Table 70: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Day Post Dosing, and Treatment Group-Safety Population

All Subjects (N=X)													
MedDRA System Organ Class	MedDRA Preferred Term	Day 0-7 Post Dose 1			Day 8-55 Post Dose 1			Day 56-63* Post Dose 2			Day 64-90 Post Dose 2		
		n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq
Any SOC	Any PT	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
	[PT 1]	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
[SOC 2]	Any PT	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
	[PT 2]	x	x	x	x	x	x	x	x	x	x	x	x

Note: N = Number of subjects in the Safety Analysis Population. For each time period, a subject is only counted once per PT.
*7 Days post receipt of Dose 2, window may vary

Tables with similar format:

Table 71: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Day Post Dosing, and Treatment Group- Safety Population-Vaccine

Table 72: Number and Percentage of Subjects Experiencing Unsolicited Adverse Events by MedDRA System Organ Class and Preferred Term, Day Post Dosing, and Treatment Group- Safety Population-Placebo

Table 73: Listing of Non-Serious, Unsolicited, Severe or Greater 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: , Cohort: HCV +/-, Treatment Group: , AE Number:										
xxxxxx	x	xx (xxx)	xxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	Y/N	xxxxxxx	xxxxxxx	xxxxxxx
Comments: xxxxxxxxxxxxxxxxxxxxxxx										
Subject ID: , Cohort: HCV +/-, Treatment Group: , AE Number:										
xxxxxx	x	xx (xxx)	xxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	Y/N	xxxxxxx	xxxxxxx	xxxxxxx
Comments: xxxxxxxxxxxxxxxxxxxxxxx										

Programming Notes:

- Subject ID should be USUBJID
- Listing should be sorted by Subject ID, Associated with Dose No., and No. of Days Post Associated Dose.
- If there are no comments for an event, populate ‘Comments’ row with ‘None’.
- If the event is ongoing (no stop date), indicate “ongoing” in the “Duration” column.
- In the “If Not Related, Alternate Etiology” column, merge the 2 data fields for collecting alternate etiology, separate by a colon.

Table 74: Number of Adverse Events Occurring in 5% of Subjects in Any Treatment Group by MedDRA System Organ Class and Preferred Term, and Treatment Group - Safety Population

Preferred Term	MedDRA System Organ Class	Vaccine (N=x)	Placebo (N=x)	All Subjects (N=x)
xxxxxx	xxxxxxxxxx	xx	xx	xx
MedDRA Version XX.X N=Number of subjects in the Safety population in the respective treatment group				

Table 75: Subjects Reporting Adverse Events Occurring in 5% Subjects in Any Treatment Group by MedDRA System Organ Class and Preferred Term, and Treatment Group - Safety Population

Preferred Term	MedDRA System Organ Class	Vaccine (N=x)	Placebo (N=x)	All Subjects (N=x)
xxxxxx	xxxxxxxxxx	xx	xx	xx

MedDRA Version XX.X
N=Number of subjects in the Safety population in the respective treatment group

Table 76: Proportion of Subjects Reporting Vaccine Related Serious Adverse Events Following the First Vaccination through the Entire Study Period by Dose Number and Treatment Group – Safety Population

Dose	Treatment Group	Number of Subjects with AEs n	Number of Subjects N	Proportion of Subjects with AEs	Proportion of Subjects with AEs 95% CI	Difference in Proportion of Subjects with AEs between Vaccine and Placebo	Difference in Proportion of Subjects with AEs between Vaccine and Placebo 95% CI	P-value*
Either	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx	0.xxx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--	--
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--	--
Dose 1	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx	0.xxx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--	--
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--	--
Dose 2	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx	0.xxx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--	--
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--	--

Notes: The denominator for proportions is based on the number of subjects enrolled in the respective treatment group for the specified dose.
*P-value from the Fisher's exact two-sided test.

Table 77: Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population

Post Either Dose (N=X)											
			All Subjects (N = X)								
			Related			Not Related			Total		
			n	%	Freq	n	%	Freq	n	%	Freq
Any SOC	Any PT	Any Severity	x	x	x	x	x	x	x	x	x
		Mild	x	x	x	x	x	x	x	x	x
		Moderate	x	x	x	x	x	x	x	x	x
		Severe	x	x	x	x	x	x	x	x	x
		Life Threatening	x	x	x	x	x	x	x	x	x
[SOC 1]	Any PT	Any Severity	x	x	x	x	x	x	x	x	x
		Mild	x	x	x	x	x	x	x	x	x
		Moderate	x	x	x	x	x	x	x	x	x
		Severe	x	x	x	x	x	x	x	x	x
		Life Threatening	x	x	x	x	x	x	x	x	x
	[PT 1]	Any Severity	x	x	x	x	x	x	x	x	x
		Mild	x	x	x	x	x	x	x	x	x
		Moderate	x	x	x	x	x	x	x	x	x
		Severe	x	x	x	x	x	x	x	x	x
		Life Threatening	x	x	x	x	x	x	x	x	x

Notes: N = Number of subjects in the Safety Analysis Population
 This table presents number and percentage of subjects as well as number of events.
 For severity, a subject is counted once per preferred term and is summarized according to their highest severity.
 For relatedness, a subject is counted once per preferred term and is summarized as related if at least one AE is related, otherwise not related.

Table 78: Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population

Post Either Dose (N=X)																				
			Vaccine (N = X)									Placebo (N = X)								
			Related			Not Related			Total			Related			Not Related			Total		
			n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq	n	%	Freq
Any SOC	Any PT	Any Severity	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
		Moderate	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
		Life Threatening	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
[SOC 1]	Any PT	Any Severity	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
		Moderate	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
		Life Threatening	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	[PT 1]	Any Severity	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
		Moderate	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
		Life Threatening	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x

Notes: N = Number of subjects in the Safety Analysis Population

This table presents number and percentage of subjects as well as number of events.

For severity, a subject is counted once per preferred term and is summarized according to their highest severity.

For relatedness, a subject is counted once per preferred term and is summarized as related if at least one AE is related, otherwise not related.

Tables with similar format:

Table 79: Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Dose 1

Table 80: Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Dose 1

Table 81: Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, and Dose-Safety Population-Post Dose 2

Table 82: Number and Percentage of Subjects Experiencing Serious Adverse Events by MedDRA System Organ Class and Preferred Term, Maximum Severity, Relationship, Treatment Group, and Dose-Safety Population-Post Dose 2

Table 83: Listing of Serious Adverse Events

Adverse Event	Associated with Dose No.	No. of Days Post Associated Dose (Duration)	No. 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: , Cohort: HCV +/-, Treatment Group: , AE Number:												
xxxxxx	x	xx	xx (xxx)	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	Y/N	xxxxxxx	xxxxxxx	xxxxxxx
Comments: xxxxxxxxxxxxxxxx												
Subject ID: , Cohort: HCV +/-, Treatment Group: , AE Number:												
xxxxxx	x	xx (xxx)	xx (xxx)	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	xxxxxxx	Y/N	xxxxxxx	xxxxxxx	xxxxxxx
Comments: xxxxxxxxxxxxxxxx												

Programming Notes:

- Subject ID should be USUBJID
- Listing should be sorted by Subject ID, Associated with Dose No., and No. of Days Post Associated Dose.
- Duration is the duration of the SAE, the difference between SAE start and end date
- If there are no comments for an event, populate ‘Comments’ row with ‘None’.
- If the event is ongoing (no stop date), indicate “ongoing” in the “Duration” column.
- In the “If Not Related, Alternate Etiology” column, merge the 2 data fields for collecting alternate etiology, separate by a colon.
- Listing will include deaths, as they are SAEs, but we will also include a separate death listing below to highlight them

Tables with similar format:

Table 84: Listing of Deaths

Section 14.3.5 Displays of Laboratory Results

Table 85: Proportion of Subjects Reporting Laboratory Adverse Events Following the First Dose of Study Product by Treatment Group - Safety Population

Dose Number	Treatment Group	Number of Subjects with Laboratory AEs n	Number of Subjects N	Proportion of Subjects with Laboratory AEs	Proportion of Subjects with Laboratory AEs 95% CI	Difference in Proportion of Subjects with Laboratory AEs between Vaccine and Placebo	Difference in Proportion of Subjects with Laboratory AEs between Vaccine and Placebo 95% CI
Baseline	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--
Post Either Dose	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--
Post Dose 1	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--
Post Dose 2	Vaccine	x	x	0.xx	0.xx, 0.xx	0.xx	0.xx, 0.xx
	Placebo	x	x	0.xx	0.xx, 0.xx	--	--
	All Subjects	x	x	0.xx	0.xx, 0.xx	--	--

Notes: The denominator for proportions is based on the number of subjects enrolled in the safety population in the respective treatment group and dose number with non-missing laboratory data for the specified timepoint.

Table 86: Biochemistry Laboratory Results by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Uninfected HCV Status*

Visit	Laboratory Parameter	Toxicity Grade	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
			n	%	n	%	n	%
Visit 1	Alanine Transferase (SGPT) (U/L)	Total Subjects with Data	x	100	x	x	x	x
		None	x	x	x	x	x	x
		Toxicity Grade 1	x	x	x	x	x	x
		Toxicity Grade 2	x	x	x	x	x	x
		Toxicity Grade 3	x	x	x	x	x	x
		Toxicity Grade 4	x	x	x	x	x	x
	Creatinine (mg/dL)	Total Subjects with Data	x	100	x	x	x	x
		None	x	x	x	x	x	x
		Toxicity Grade 1	x	x	x	x	x	x
		Toxicity Grade 2	x	x	x	x	x	x
		Toxicity Grade 3	x	x	x	x	x	x
		Toxicity Grade 4	x	x	x	x	x	x
Continue through Visit 26...								

Notes: * Uninfected HCV Status: all laboratory results collected prior to confirmed HCV infection are summarized
 The denominator for percentages is based on total number of subjects with laboratory data available for the specified parameter and visit.
 n = Number of subjects with the observed case.

Programming note:

- If a parameter has a grading scale that includes grading for both increase and decrease, then include one row for each toxicity grade for increase and decrease

Table 87: Biochemistry Laboratory Results by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Infected HCV Status*

Visit	Laboratory Parameter	Toxicity Grade	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)		
			n	%	n	%	n	%	
First HCV RNA positive visit	Alanine Transferase (SGPT) (U/L)	Total Subjects with Data	x	100	x	x	x	x	
		None	x	x	x	x	x	x	
		Toxicity Grade 1	x	x	x	x	x	x	
		Toxicity Grade 2	x	x	x	x	x	x	
		Toxicity Grade 3	x	x	x	x	x	x	
		Toxicity Grade 4	x	x	x	x	x	x	
		Creatinine (mg/dL)	Total Subjects with Data	x	100	x	x	x	x
			None	x	x	x	x	x	x
			Toxicity Grade 1	x	x	x	x	x	x
			Toxicity Grade 2	x	x	x	x	x	x
H01	Alanine Transferase (SGPT) (U/L)	Total Subjects with Data	x	100	x	x	x	x	
		None	x	x	x	x	x	x	
		Toxicity Grade 1	x	x	x	x	x	x	
		Toxicity Grade 2	x	x	x	x	x	x	
		Toxicity Grade 3	x	x	x	x	x	x	
		Toxicity Grade 4	x	x	x	x	x	x	
		Creatinine (mg/dL)	Total Subjects with Data	x	100	x	x	x	x
			None	x	x	x	x	x	x
			Toxicity Grade 1	x	x	x	x	x	x
			Toxicity Grade 2	x	x	x	x	x	x
		Toxicity Grade 3	x	x	x	x	x	x	

Visit	Laboratory Parameter	Toxicity Grade	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
			n	%	n	%	n	%
		Toxicity Grade 4	x	x	x	x	x	x
Continue through Visit H09...								

Notes: * Infected HCV Status: all laboratory results collected after confirmed HCV infection and during HCV cohort are summarized
 The denominator for percentages is based on total number of subjects with data available for the specified parameter and visit.
 n = Number of subjects with the observed case.

Programming note:

- If a parameter has a grading scale that includes grading for both increase and decrease, then include one row for each toxicity grade for increase and decrease

Tables with similar format:

Table 88: Biochemistry Laboratory Results Related to Vaccination by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Uninfected HCV Status*

Table 89: Biochemistry Laboratory Results Related to Vaccination by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Infected HCV Status*

Table 90: Hematology Laboratory Results by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Uninfected HCV Status*

Visit	Laboratory Parameter	Toxicity Grade	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
			n	%	n	%	n	%
Visit 1	White Blood Cells (10 ³ cells/μL)	Total Subjects with Data	x	100	x	x	x	x
		None	x	x	x	x	x	x
		Toxicity Grade 1	x	x	x	x	x	x
		Toxicity Grade 2	x	x	x	x	x	x
		Toxicity Grade 3	x	x	x	x	x	x
		Toxicity Grade 4	x	x	x	x	x	x
		Hemoglobin (g/dL)	Total Subjects with Data	x	100	x	x	x
	None		x	x	x	x	x	x
	Toxicity Grade 1		x	x	x	x	x	x
	Toxicity Grade 2		x	x	x	x	x	x
	Toxicity Grade 3		x	x	x	x	x	x
	Toxicity Grade 4		x	x	x	x	x	x
	Platelets (10 ³ cells/mm ³)		Total Subjects with Data	x	100	x	x	x
		None	x	x	x	x	x	x
		Toxicity Grade 1	x	x	x	x	x	x
		Toxicity Grade 2	x	x	x	x	x	x
		Toxicity Grade 3	x	x	x	x	x	x
		Toxicity Grade 4	x	x	x	x	x	x
Continue through Visit 26...								

Notes: * Uninfected HCV Status: all laboratory results collected prior to confirmed HCV infection are summarized
 The denominator for percentages is based on total number of subjects with data available for the specified parameter and visit.
 n = Number of subjects with the observed case.

Programming note:

- If a parameter has a grading scale that includes grading for both increase and decrease, then include one row for each toxicity grade for increase and decrease

Table 91: Hematology Laboratory Results by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Infected HCV Status*

Visit	Laboratory Parameter	Toxicity Grade	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
			n	%	n	%	n	%
H01	White Blood Cells (10 ³ cells/μL)	Total Subjects with Data	x	100	x	x	x	x
		None	x	x	x	x	x	x
		Toxicity Grade 1	x	x	x	x	x	x
		Toxicity Grade 2	x	x	x	x	x	x
		Toxicity Grade 3	x	x	x	x	x	x
		Toxicity Grade 4	x	x	x	x	x	x
	Hemoglobin (g/dL)	Total Subjects with Data	x	100	x	x	x	x
		None	x	x	x	x	x	x
		Toxicity Grade 1	x	x	x	x	x	x
		Toxicity Grade 2	x	x	x	x	x	x
		Toxicity Grade 3	x	x	x	x	x	x
		Toxicity Grade 4	x	x	x	x	x	x
	Platelets (10 ³ cells/mm ³)	Total Subjects with Data	x	100	x	x	x	x
		None	x	x	x	x	x	x
		Toxicity Grade 1	x	x	x	x	x	x
		Toxicity Grade 2	x	x	x	x	x	x
		Toxicity Grade 3	x	x	x	x	x	x
		Toxicity Grade 4	x	x	x	x	x	x
Continue through Visit H09...								

Notes: * Infected HCV Status: all laboratory results collected after confirmed HCV infection and during HCV cohort are summarized
The denominator for percentages is based on total number of subjects with data available at the specified parameter and visit.
n = Number of subjects with the observed case.

Programming note:

-
- Include rows for each parameter/severity for “First HCV RNA positive visit” as well, Visits will be First HCV RNA positive visit, H01-H09
 - If a parameter has a grading scale that includes grading for both increase and decrease, then include one row for each toxicity grade for increase and decrease

Tables with similar format:

Table 92: Hematology Laboratory Results Related to Vaccination by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Uninfected HCV Status*

Table 93: Hematology Laboratory Results Related to Vaccination by Parameter, Maximum Severity, Visit, and Treatment Group – Safety Population-Infected HCV Status*

Table 94: Biochemistry Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population—Uninfected HCV Status*, Vaccine

Vaccine (N=X)										
	Screening	Baseline	Visit 4	Visit 5	Visit 6	Visit 8	Visit 9	Visit 10	Visit 16	Visit 26
Alanine Transferase (SGPT) (U/L)										
n	x	x	x	x	x	x	x	x	x	x
Mean (SD)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)
Median	x	x	x	x	x	x	x	x	x	x
Minimum, Maximum	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x
Change from Baseline Mean (SD)	--	--	x (x)	x (x)	x (x)					
Creatinine (mg/dL)										
n	x	x	x	x	x	x	x	x	x	x
Mean (SD)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)
Median	x	x	x	x	x	x	x	x	x	x
Minimum, Maximum	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x
Change from Baseline Mean (SD)	--	--	x (x)	x (x)	x (x)					
Notes: * Uninfected HCV status - all laboratory results collected prior to confirmed HCV infection are summarized. n = Number of subjects with laboratory measurements available at the specified visit(s). N=number of subjects in the safety population in the respective treatment group										

Tables with similar format:

Table 95: Biochemistry Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population—Uninfected HCV Status*, Placebo

Table 96: Biochemistry Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population—Infected HCV Status*, Vaccine

Programming notes:

- Visits will be First HCV RNA positive visit, H01-H09
- Footnote will read “* Infected HCV Status: all laboratory results collected after confirmed HCV infection and during HCV cohort are summarized”

Table 97: Biochemistry Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population—Infected HCV Status*, Placebo

Programming notes:

- Visits will be First HCV RNA positive visit, H01-H09
- Footnote will read “* Infected HCV Status: all laboratory results collected after confirmed HCV infection and during HCV cohort are summarized”

Table 98: Hematology Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population – Uninfected HCV Status*, Vaccine

Vaccine (N=X)										
	Screening	Baseline	Visit 4	Visit 5	Visit 6	Visit 8	Visit 9	Visit 10	Visit 16	Visit 26
White Blood Cells (10³ cells/μL)										
n	x	x	x	x	x	x	x	x	x	x
Mean (SD)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)
Median	x	x	x	x	x	x	x	x	x	x
Minimum, Maximum	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x
Change from Baseline Mean (SD)	--	--	x (x)	x (x)	x (x)					
Hemoglobin (g/dL)										
n	x	x	x	x	x	x	x	x	x	x
Mean (SD)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)
Median	x	x	x	x	x	x	x	x	x	x
Minimum, Maximum	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x
Change from Baseline Mean (SD)	--	--	x (x)	x (x)	x (x)					
Platelets (10³ cells/mm³)										
n	x	x	x	x	x	x	x	x	x	x
Mean (SD)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)	x (x)
Median	x	x	x	x	x	x	x	x	x	x
Minimum, Maximum	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x	x, x
Change from Baseline Mean (SD)	--	--	x (x)	x (x)	x (x)					
Notes: * Uninfected HCV status - all laboratory results collected prior to confirmed HCV infection are summarized. n = Number of subjects with laboratory measurements available at the specified visit(s). N= Number of subjects in the safety population in the respective treatment group										

Tables with similar format:

Table 99: Hematology Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population – Uninfected HCV Status*, Placebo

Table 100: Hematology Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population – Infected HCV Status*, Vaccine

Programming notes:

- Visits will be First HCV RNA positive visit, H01-H09
- Footnote will read “* Infected HCV Status: all laboratory results collected after confirmed HCV infection and during HCV cohort are summarized”

Table 101: Hematology Laboratory Summary Statistics by Parameter, Visit, and Treatment Group – Safety Population – Infected HCV Status*, Placebo

Programming notes:

- Visits will be First HCV RNA positive visit, H01-H09
- Footnote will read “* Infected HCV Status: all laboratory results collected after confirmed HCV infection and during HCV cohort are summarized”

Table 102: Biochemistry Summary of Laboratory Test Shifts of Laboratory Values from Baseline by Site - Uninfected HCV Status* - Safety Population

Visit	Shift Category	Laboratory Test	Vaccine (N=X) n/NN (%)	Placebo (N=X) n/NN (%)	All Subjects (N=X) n/NN (%)
Visit 4	Normal to Low	Alanine Transferase (SGPT) (U/L)	x/x (x)	x/x (x)	x/x (x)
		Creatinine (mg/dL)	x/x (x)	x/x (x)	x/x (x)
	Normal to High	Alanine Transferase (SGPT) (U/L)	x/x (x)	x/x (x)	x/x (x)
		Creatinine (mg/dL)	x/x (x)	x/x (x)	x/x (x)
Continue for all study Visits					
Notes: * Infected HCV Status: all laboratory results collected after confirmed HCV infection and during the HCV cohort are summarized NN = Number of subjects with normal laboratory test results at Baseline and laboratory test results available at the Visit being summarized. n = Number of subjects with the observed case. Percentages are based on NN.					

Table 103: Biochemistry Summary of Laboratory Test Shifts of Laboratory Values from Baseline by Site - Infected HCV Status* - Safety Population

Visit	Shift Category	Laboratory Test	The Johns Hopkins University (N=X) n/NN (%)	University of California San Francisco (N=X) n/NN (%)	All Subjects (N=X) n/NN (%)
H02	Normal to Low	Alanine Transferase (SGPT) (U/L)	x/x (x)	x/x (x)	x/x (x)
		Creatinine (mg/dL)	x/x (x)	x/x (x)	x/x (x)
	Normal to High	Alanine Transferase (SGPT) (U/L)	x/x (x)	x/x (x)	x/x (x)
		Creatinine (mg/dL)	x/x (x)	x/x (x)	x/x (x)
Continue for all study Visits					

Notes: * Infected HCV Status: all laboratory results collected after confirmed HCV infection and during the HCV cohort are summarized
 NN = Number of subjects with normal laboratory test results at Baseline and laboratory test results available at the Visit being summarized.
 n = Number of subjects with the observed case.
 Percentages are based on NN.

Table 104: Summary of Hematology Laboratory Test Shifts of Laboratory Values from Baseline by Site - Uninfected HCV Status* - Safety Population

Visit	Shift Category	Laboratory Test	Vaccine (N=X) n/NN (%)	Placebo (N=X) n/NN (%)	All Subjects (N=X) n/NN (%)
Visit 4	Normal to Low	Hemoglobin (g/dL)	x/x (x)	x/x (x)	x/x (x)
		Platelet Counts (10 ³ cells/mm ³)	x/x (x)	x/x (x)	x/x (x)
		White Blood Cells (10 ³ cells/μL)	x/x (x)	x/x (x)	x/x (x)
	Normal to High	Hemoglobin (g/dL)	x/x (x)	x/x (x)	x/x (x)
		Platelet Counts (10 ³ cells/mm ³)	x/x (x)	x/x (x)	x/x (x)
		White Blood Cells (10 ³ cells/μL)	x/x (x)	x/x (x)	x/x (x)
Continue for all study Visits					

Notes: * Uninfected HCV Status: all laboratory results collected prior to confirmed HCV infection are summarized
 NN = Number of subjects with normal laboratory test results at Baseline and laboratory test results available at the Visit being summarized.
 n = Number of subjects with the observed case.
 Percentages are based on NN

Table 105: Summary of Hematology Laboratory Test Shifts of Laboratory Values from Baseline by Site - Infected HCV Status* - Safety Population

Visit	Shift Category	Laboratory Test	Vaccine (N=X) n/NN (%)	Placebo (N=X) n/NN (%)	All Subjects (N=X) n/NN (%)
H02	Normal to Low	Hemoglobin (g/dL)	x/x (x)	x/x (x)	x/x (x)
		Platelet Counts (10 ³ cells/mm ³)	x/x (x)	x/x (x)	x/x (x)
		White Blood Cells (10 ³ cells/μL)	x/x (x)	x/x (x)	x/x (x)
	Normal to High	Hemoglobin (g/dL)	x/x (x)	x/x (x)	x/x (x)
		Platelet Counts (10 ³ cells/mm ³)	x/x (x)	x/x (x)	x/x (x)
		White Blood Cells (10 ³ cells/μL)	x/x (x)	x/x (x)	x/x (x)
Continue for all study Visits					

Notes: * Infected HCV Status: all laboratory results collected after confirmed HCV infection and during the HCV cohort are summarized
 NN = Number of subjects with normal laboratory test results at Baseline and laboratory test results available at the Visit being summarized.
 n = Number of subjects with the observed case.
 Percentages are based on NN.

Table 106: Maximum Likelihood Odds Ratio Estimates by Biochemistry Laboratory Parameter-Safety Population- 1 month Post-Vaccination 1

Laboratory Parameter	Maximum Likelihood Estimates		Odds Ratio Estimates	
	Estimate (SE)	P-value	Odds Ratio	95% CI
Alanine Transferase (SGPT) (U/L)	x.x (x.x)	0.xxx	x.x	x.x, x.x
Creatinine (mg/dL)	x.x (x.x)	0.xxx	x.x	x.x, x.x
Continue for all parameters...				

Tables with similar format:

Table 107: Maximum Likelihood and Odds Ratio Estimates by Biochemistry Laboratory Parameter-Safety Population- 1 month Post-Vaccination 2

Table 108: Odds Ratio Estimates by Hematology Laboratory Parameter-Safety Population- 1 month Post-Vaccination 1

Laboratory Test	Maximum Likelihood Estimates		Odds Ratio Estimates	
	Estimate (SE)	P-value	Odds Ratio	95% CI
Hemoglobin (g/dL)				
Hemoglobin (g/dL)	x (x.x)	0.xxx	x.x	x.x, x.x
Platelet Counts (10 ³ cells/mm ³)	x (x.x)	0.xxx	x.x	x.x, x.x
White Blood Cells (10 ³ cells/ μ L)	x (x.x)	0.xxx	x.x	x.x, x.x
Continue for all parameters...				

Tables with similar format:

Table 109: Maximum Likelihood and Odds Ratio Estimates by Hematology Laboratory Parameter-Safety Population- 1 month Post-Vaccination 2

Table 110: Listing of Abnormal Laboratory Results - Chemistry

Subject ID	Treatment Group	HCV Status	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?
xxxxxxx	Vaccine /Placebo	Infected/Uninfected	M/F	xx	xx	xx	xxxx (xxx)	xxxxx (xxxxx)	xxxxxxx	xxxxxxx	xxxxxxx	Y/N

Table 111: Listing of Abnormal Laboratory Results - Hematology

Subject ID	Treatment Group	HCV Status	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?
xxxxxxx	Vaccine /Placebo	Infected/Uninfected	M/F	xx	xx	xx	xxxx (xxx)	xxxxx (xxxxx)	xxxxxxx	xxxxxxx	xxxxxxx	Y/N

Table 112: Number and Percentage of Subjects with Prior and Concurrent Medications by WHO Drug Classification and Treatment Group- Safety Population-All Subjects

All Subjects (N=X)							
WHO Drug Code Level 1, Anatomic Group	WHO Drug Code Level 2, Therapeutic Subgroup	Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
		n	%	n	%	n	%
Any Level 1 Codes	Any Level 2 Codes	x	x	x	x	x	x
[ATC Level 1 - 1]	Any	x	x	x	x	x	x
	[ATC 2 - 1]	x	x	x	x	x	x
	[ATC 2 - 2]	x	x	x	x	x	x
	[ATC 2 - 3]	x	x	x	x	x	x
[ATC Level 1 - 2]	Any	x	x	x	x	x	x
	[ATC 2 - 1]	x	x	x	x	x	x
	[ATC 2 - 2]	x	x	x	x	x	x
	[ATC 2 - 3]	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.

Tables with similar format:

Table 113: Number and Percentage of Subjects with Prior and Concurrent Medications by WHO Drug Classification and Site- Safety Population

Table 114: Summary of Substance Treatment by Site—Safety Population

		Johns Hopkins University (N=X)		University of California, San Francisco (N=X)		University of New Mexico (N=X)		All Subjects (N=X)	
		n	%	n	%	n	%	n	%
Program type:	Methadone detox	x	x	x	x	x	x	x	x
	Methadone maintenance	x	x	x	x	x	x	x	x
	Suboxone detox	x	x	x	x	x	x	x	x
	Suboxone maintenance	x	x	x	x	x	x	x	x
	Residential Treatment	x	x	x	x	x	x	x	x
	NA, AA, or other 12-step program	x	x	x	x	x	x	x	x
	Medically-assisted residential detox	x	x	x	x	x	x	x	x
	Non-medically assisted residential detox	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x
	Total subjects receiving treatment	x	x	x	x	x	x	x	x
Reason(s) for treatment:	Alcohol	x	x	x	x	x	x	x	x
	Heroin	x	x	x	x	x	x	x	x
	Other opioids or painkillers	x	x	x	x	x	x	x	x
	Other sedatives	x	x	x	x	x	x	x	x
	Cocaine or crack	x	x	x	x	x	x	x	x
	Amphetamines	x	x	x	x	x	x	x	x
	Cannabis	x	x	x	x	x	x	x	x
	Inhalants	x	x	x	x	x	x	x	x
	Other	x	x	x	x	x	x	x	x

Table 115: Summary of Substance Treatment by Treatment Group—Safety Population

		Vaccine (N=X)		Placebo (N=X)		All Subjects (N=X)	
		n	%	n	%	n	%
Program type:	Methadone detox	x	x	x	x	x	x
	Methadone maintenance	x	x	x	x	x	x
	Suboxone detox	x	x	x	x	x	x
	Suboxone maintenance	x	x	x	x	x	x
	Residential Treatment	x	x	x	x	x	x
	NA, AA, or other 12-step program	x	x	x	x	x	x
	Medically-assisted residential detox	x	x	x	x	x	x
	Non-medically assisted residential detox	x	x	x	x	x	x
	Other	x	x	x	x	x	x
	Total subjects receiving treatment	x	x	x	x	x	x
Reason(s) for treatment:	Alcohol	x	x	x	x	x	x
	Heroin	x	x	x	x	x	x
	Other opioids or painkillers	x	x	x	x	x	x
	Other sedatives	x	x	x	x	x	x
	Cocaine or crack	x	x	x	x	x	x
	Amphetamines	x	x	x	x	x	x
	Cannabis	x	x	x	x	x	x
	Inhalants	x	x	x	x	x	x
	Other	x	x	x	x	x	x

Section 14.3 Immunogenicity Data**Table 116: ELISpot Responses by Treatment Group—Immunogenicity Population**

	Vaccine (N=X)	Placebo (N=X)
Number of Responders	xxx	xxx
Response Rate ^[1]	xx.x	xx.x
95% Confidence Interval	xx.x, xx.x	xx.x, xx.x
[1] Response Rate is calculated as the number of subjects with a positive ELISpot/N * 100%.		

Table 117: Geometric Mean (GM) and Geometric Mean Fold Rise (GMFR) ELISpot Responses (Across all Pools) with 95% Confidence Intervals by Study Day and Treatment Group—Immunogenicity Population, HCV- Subjects

Time Point	Statistic	Vaccine (N=X)	Placebo (N=X)
Day 1 (Dose 1)	n	x	x
	GM	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
Day 30	n	x	x
	GM	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
	GMFR	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
Day 56 (Dose 2)	n	x	x
	GM	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
	GMFR	x.x	x.x
	95% CI	x.x, x.x	x.x, x.x
...			

Note: N = Number of subjects in specific treatment group, n = number of HCV-infected subjects with complete ELISpot data available at the particular time point.

Tables with Similar Format:

Table 118: Geometric Mean (GM) and Geometric Mean Fold Rise (GMFR) ELISpot Responses (Across all Pools) with 95% Confidence Intervals by Study Day and Treatment Group—Immunogenicity Population, HCV+ Subjects

Table 119: Geometric Mean (GM) and Geometric Mean Fold Rise (GMFR) ELISpot Responses (Across Positive Pools) with 95% Confidence Intervals by Study Day and Treatment Group—Immunogenicity Population, HCV- Subjects

Table 120: Geometric Mean (GM) and Geometric Mean Fold Rise (GMFR) ELISpot Responses (Across Positive Pools) with 95% Confidence Intervals by Study Day and Treatment Group—Immunogenicity Population, HCV+ Subjects

Table 121: Total Number of Positive Pools by Study Day and Treatment Group— Immunogenicity Population, HCV- Subjects

Time Point	Statistic	Vaccine (N=X)	Placebo (N=X)
Day 1 (Dose 1)	n	x	x
	Mean (SD)	x.x (x.x)	x.x (x.x)
	Median [Min, Max]	x.x (x, x)	x.x (x, x)
Day 30	n	x	x
	Mean (SD)	x.x (x.x)	x.x (x.x)
	Median [Min, Max]	x.x (x, x)	x.x (x, x)
Day 56 (Dose 2)	n	x	x
	Mean (SD)	x.x (x.x)	x.x (x.x)
	Median	x.x	x.x
	Min, Max	x, x	x, x

Tables with Similar Format:

Table 122: Total Number of Positive Pools by Study Day and Treatment Group —Immunogenicity Population, HCV+ Subjects

**Table 123: Maximum ELISpot Response (Across Positive Pools) by Treatment Group—
Immunogenicity Population**

Subpopulation	Statistic	Vaccine (N=X)	Placebo (N=X)
HCV- Subjects	n	x	x
	Mean (SD)	x.x (x.x)	x.x (x.x)
	Median [Min, Max]	x.x (x, x)	x.x (x, x)
HCV+ Subjects	n	x	x
	Mean (SD)	x.x (x.x)	x.x (x.x)
	Median [Min, Max]	x.x (x, x)	x.x (x, x)

Section 12.4.1 Individual Laboratory Measurements and Abnormal Laboratory Values**Table 124: Laboratory Adverse Event Grading Scale-Hematology**

HEMATOLOGY				
	<i>Grade 1</i>	<i>Grade 2</i>	<i>Grade 3</i>	<i>Grade 4</i>
Hemoglobin (g/dl)				
Male:	11.0-12.4	9.6-10.9	8.3-9.5	<8.3
Female:	9.6-10.8	8.4-9.5	7.2-8.3	<7.2
Platelets (per cumm)	84,500-117,000	65,000-84,499	25,000-64,999	< 25,000
WBCs (thou/mcl)				
Lower Limit	2.5-2.9	1.9-2.4	1.0-1.8	<1.0
Upper Limit	11.9-15.1	15.2-21.6	21.7-25.0	>25

Table 125: Laboratory Adverse Event Grading Scale-Chemistries

CHEMISTRIES				
	<i>Grade 1</i>	<i>Grade 2</i>	<i>Grade 3</i>	<i>Grade 4</i>
Hypokalemia	3.0 - 3.4 mEq/L	2.5 - 2.9 mEq/L	2.0 - 2.4 mEq/L or intensive replacement therapy or hospitalization required	<2.0 mEq/L or abnormal potassium <i>with</i> paresis, ileus or life-threatening arrhythmia
Hyperkalemia	5.6 - 6.0 mEq/L	6.1 - 6.5 mEq/L	6.6 - 7.0 mEq/l	>7.0 mEq/L or abnormal potassium <i>with</i> life- threatening arrhythmia
Hyperglycemia (nonfasting and no prior diabetes) NOTE: (normal range for Glucose, Random, Serum is 60- 199 mg/dL for one site laboratory)	200 - 274 mg/dL	275 - 349 mg/dL	350 - 499 mg/dL	>500 mg/dL or abnormal glucose <i>with</i> ketoacidosis or seizures
Hypophosphatemia	2.0 - 2.4 mg/dL	1.5 -1.9 mg/dL or replacement Rx required	1.0 -1.4 mg/dL intensive therapy or hospitalization required	< 1.0 mg/dL or abnormal phosphate <i>with</i> life- threatening arrhythmia
Hyperbilirubinemia (when accompanied by any increase in other liver function test)	1.1 - <1.25 x ULN	1.25 - <1.5 x ULN	1.5 – 1.75 x ULN	>1.75 x ULN
Hyperbilirubinemia (when other liver function are in the normal range)	1.1 - <1.5 x ULN	1.5 - <2.0 x ULN	2.0 – 3.0 x ULN	>3.0 x ULN
BUN	1.25 - 2.5 x ULN	2.6 - 5 x ULN	5.1 - 10 x ULN	>10 x ULN
Creatinine*	1.2 - 1.5 x ULN	>1.5- 2 x ULN	>2 x ULN	Dialysis required
CPK	2.0-3.4 x ULN	3-5.9 x ULN	6-9.9 x ULN	≥10 x ULN

* Use age and gender appropriate values

Table 126: Laboratory Adverse Event Grading Scale-Enzymes

ENZYMES				
	<i>Grade 1</i>	<i>Grade 2</i>	<i>Grade 3</i>	<i>Grade 4</i>
AST (SGOT)	>1.25 -2.5 x ULN	>2.5 – 4 x ULN	>4 -8 x ULN	>8 x ULN
ALT (SGPT)	>1.25 - 2.5 x ULN	>2.5 – 4 x ULN	>4 -8 x ULN	> 8 xULN
LDH	>1.25 - 2.5 x ULN	>2.5 – 4 x ULN	>4-8xULN	> 8 x ULN
GGT	1.1 - <2.0 x ULN	2.0 – <3.0 x ULN	3.0 – 8.0 x ULN	>8 x ULN
Alkaline Phosphatase	1.1 - <2.0 x ULN	2.0 – <3.0 x ULN	3.0 – 8.0 x ULN	>8 x ULN
Amylase	1.1 - 1.5 x ULN	1.6 - 2.0 x ULN	2.1 - 5.0 x ULN	>5.0 x ULN
Lipase	1.1 - 1.5 x ULN	1.6 - 2.0 x ULN	2.1 - 5.0 x ULN	>5.0 x ULN

Table 127: Laboratory Adverse Event Grading Scale-Glucose

URINALYSIS				
	<i>Grade 1</i>	<i>Grade 2</i>	<i>Grade 3</i>	<i>Grade 4</i>
Proteinuria	1+ or 200 mg – 1 gm loss/day	2-3 + or 1-2 gm loss/day	4+ or 2-3.5 gm loss/day	Nephritic syndrome or >3.5 gm loss/day
Hematuria	Microscopic only <10 rbc/hpf	Gross, no clots >10rbc/hpf	Gross, with or without clots, OR red blood cell casts	Obstructive or required transfusion
Glucose	1+	2+	3+	4+

APPENDIX 2. FIGURE MOCK-UPS

This document includes examples mock-ups of figures to present immunogenicity, efficacy, and safety data.

Instructional text is included in brackets [Instruction or Implementation Note:].

LIST OF FIGURES

Figure 1:	Schematic of the Study Design.....	142
Figure 2:	CONSORT Flow Diagram	143
Figure 3:	Kaplan-Meier Curves for 6-Month Chronic HCV Infection—According-To-Protocol Population	144
Figure 4:	Kaplan-Meier Curves for 6-Month Chronic HCV Infection - Modified Intent-to-Treat Population	145
Figure 5:	Kaplan-Meier Curves for Incident HCV Infection—According-To-Protocol Population.....	145
Figure 6:	Kaplan-Meier Curves for Incident HCV Infection - Modified Intent-to-Treat Population.....	145
Figure 7:	Kaplan-Meier Curves for 9-Month Chronic HCV Infection According-To-Protocol Population	145
Figure 8:	Kaplan-Meier Curves for 9-Month Chronic HCV Infection - Modified Intent-to-Treat Population	145
Figure 9:	Kaplan-Meier Curves for Duration of Incident HCV Infection According-To-Protocol Population.....	145
Figure 10:	Kaplan-Meier Curves for Duration of Incident HCV Infection - Modified Intent-to-Treat Population	145
Figure 11:	Kaplan-Meier Curves for 6-Month Chronic HCV Genotype 1 Infection According-To-Protocol Population	145
Figure 12:	Kaplan-Meier Curves for 6-Month Chronic HCV Genotype 1 Infection - Modified Intent-to-Treat Population.....	145
Figure 13:	Individual and Median ELISpot Responses by Study Day – Immunogenicity Population, Vaccine Group, HCV- Subjects	146
Figure 14:	Individual and Median ELISpot Responses by Study Day – Immunogenicity Population, Vaccine Group, HCV+ Subjects	146
Figure 15:	Individual and Median ELISpot Responses by Study Day – Immunogenicity Population, Placebo Group, HCV+ Subjects.....	146
Figure 16:	Boxplots of ELISpot Response to Peptide Pools at Study Day 63 – Immunogenicity Population.....	147

Figure 17: Number of Positive Peptide Pools by Study Day – Immunogenicity Population	148
Figure 18: Boxplots of Maximum ELISpot Response to Peptide Pools – Immunogenicity Population.....	149
Figure 19: Maximum Severity of Solicited Local Adverse Events by Symptom and Treatment Group - Safety Population, Post Dose 1.....	150
Figure 20: Maximum Severity of Solicited Local Adverse Events by Symptom and Treatment Group - Safety Population, Post Dose 2.....	150
Figure 21: Maximum Severity of Solicited Systemic Adverse Events by Symptom and Treatment Group - Safety Population, Post Dose 1.....	151
Figure 22: Maximum Severity of Solicited Systemic Adverse Events by Symptom and Treatment Group - Safety Population, Post Dose 2.....	151
Figure 23: Maximum Severity of Solicited Local Symptoms per Subject by Day Post Treatment—Safety Population—Dose 1	152
Figure 24: Maximum Severity of Solicited Local Symptoms per Subject by Day Post Treatment—Safety Population—Dose 2	153
Figure 25: Maximum Severity of Solicited Systemic Symptoms per Subject by Day Post Treatment—Safety Population—Dose 1	153
Figure 26: Maximum Severity of Solicited Systemic Symptoms per Subject by Day Post Treatment—Safety Population—Dose 2	153
Figure 27: Frequency of Adverse Events by MedDRA System Organ Class and Severity	154
Figure 28: Incidence of Adverse Events by MedDRA® System Organ Class and Maximum Severity	155
Figure 29: Frequency of Adverse Events by MedDRA System Organ Class and Relationship to Treatment.....	156
Figure 30: Incidence of Adverse Events by MedDRA System Organ Class and Relationship to Treatment.....	157
Figure 31: Laboratory Results by Scheduled Visit and Treatment Group –Safety Population, Uninfected HCV Status, Hemoglobin(g/dL).....	158
Figure 32: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group – Safety Population—Uninfected HCV Status, White Blood Cells (10 ³ cells/μL)	158
Figure 33: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group– Safety Population— Uninfected HCV Status, Platelet Counts (10 ³ cells/mm ³)	158
Figure 34: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group– Safety Population— Uninfected HCV Status, Alanine Transferase (SGPT) (U/L).....	158

Figure 35: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group Treatment Group– Safety Population— Uninfected HCV Status, Creatinine (mg/dL)	158
Figure 36: Laboratory Results by Scheduled Visit and Treatment Group –Safety Population, Infected HCV Status, Hemoglobin(g/dL)	159
Figure 37: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group – Safety Population—Infected HCV Status, White Blood Cells (10 ³ cells/μL).....	159
Figure 38: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group– Safety Population— Infected HCV Status, Platelet Counts (10 ³ cells/mm ³)	159
Figure 39: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group– Safety Population— Infected HCV Status, Alanine Transferase (SGPT) (U/L).....	159
Figure 40: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group Treatment Group– Safety Population— Infected HCV Status, Creatinine (mg/dL)	159
Figure 41: Summary of Baseline Injection Drug Use by Site and Discontinuation Status - All Enrolled Subjects Completing at Least One Behavioral Questionnaire	160
Figure 42: Summary of Baseline Injection Drug Use by Treatment Group and Discontinuation Status - All Enrolled Subjects Completing at Least One Behavioral Questionnaire	160

Section 10.1 Disposition of Subjects

Figure 1: Schematic of the Study Design

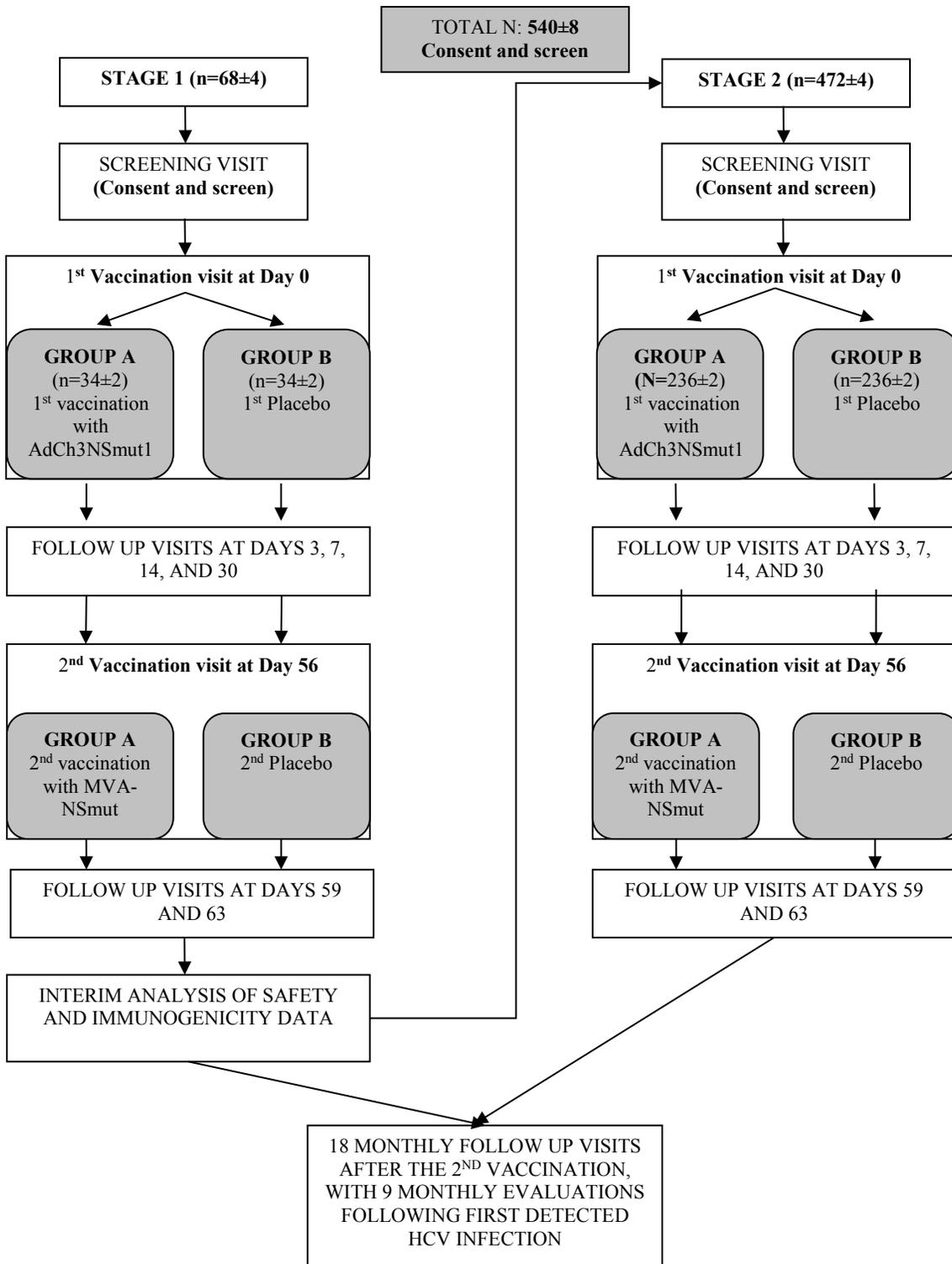
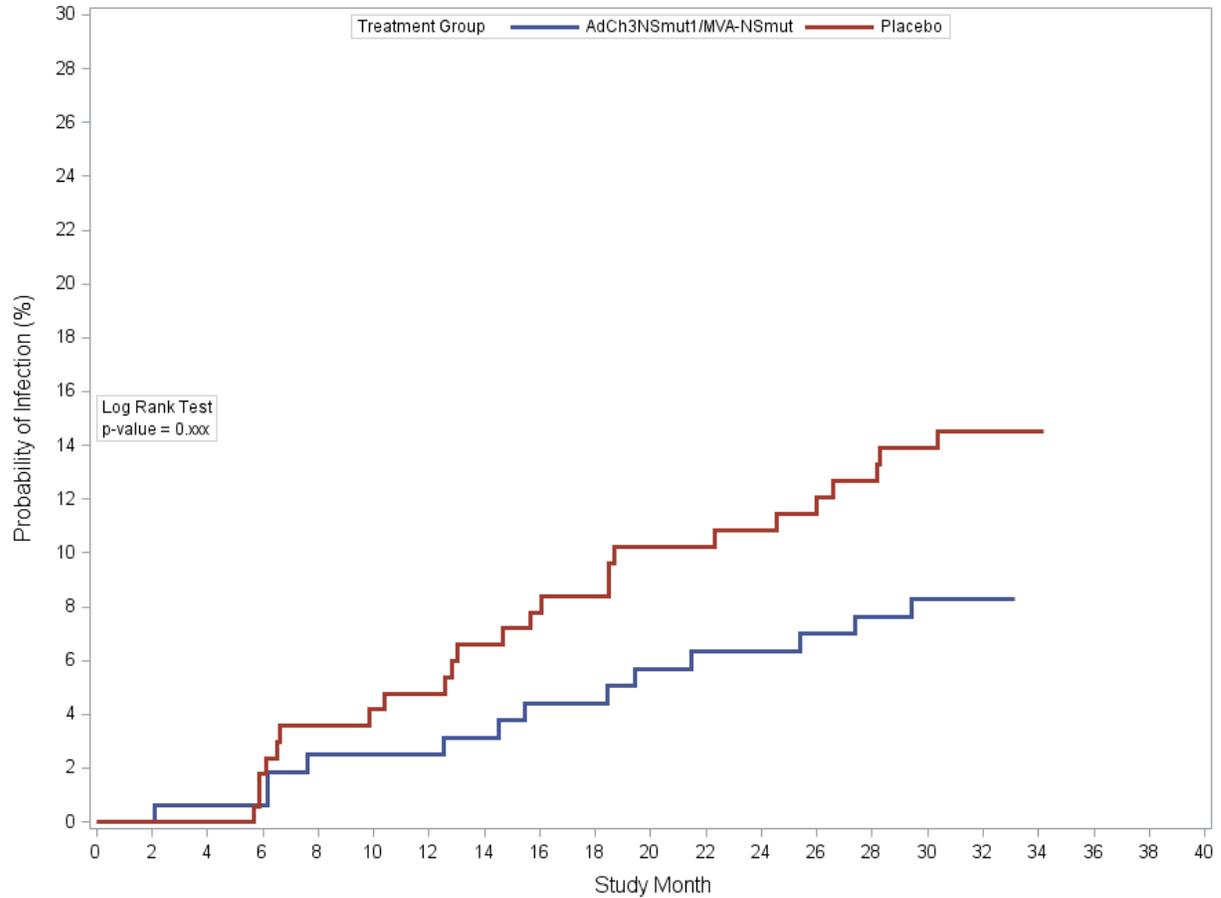


Figure 2: CONSORT Flow Diagram

A CONSORT Flow Diagram will be provided

Section 14.2.2 Efficacy/Immunogenicity Response Figures by Measure, Treatment/Vaccination, and Time Point

Figure 3: Kaplan-Meier Curves for 6-Month Chronic HCV Infection—According-To-Protocol Population



Programming note:

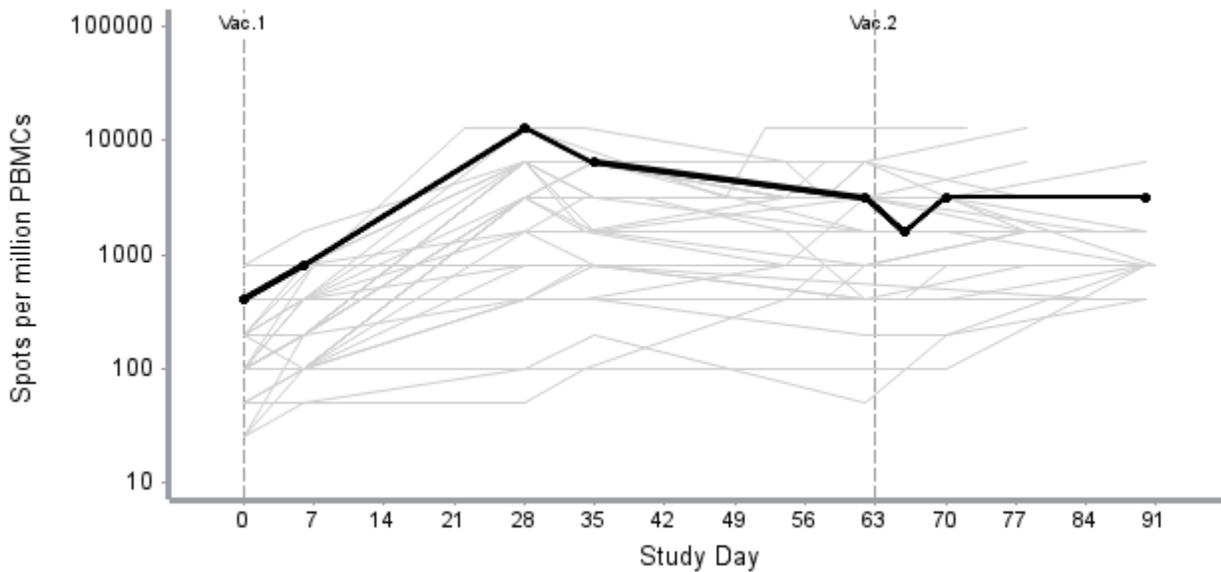
- Treatment groups will read “Vaccine” and “Placebo”

Figures with similar format:

- Figure 4: Kaplan-Meier Curves for 6-Month Chronic HCV Infection - Modified Intent-to-Treat Population**
- Figure 5: Kaplan-Meier Curves for Incident HCV Infection—According-To-Protocol Population**
- Figure 6: Kaplan-Meier Curves for Incident HCV Infection - Modified Intent-to-Treat Population**
- Figure 7: Kaplan-Meier Curves for 9-Month Chronic HCV Infection According-To-Protocol Population**
- Figure 8: Kaplan-Meier Curves for 9-Month Chronic HCV Infection - Modified Intent-to-Treat Population**
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- Figure 10: Kaplan-Meier Curves for Duration of Incident HCV Infection - Modified Intent-to-Treat Population**
- Figure 11: Kaplan-Meier Curves for 6-Month Chronic HCV Genotype 1 Infection According-To-Protocol Population**
- Figure 12: Kaplan-Meier Curves for 6-Month Chronic HCV Genotype 1 Infection - Modified Intent-to-Treat Population**

Figure 13: Individual and Median ELISpot Responses by Study Day – Immunogenicity Population, Vaccine Group, HCV- Subjects

[Note: The figure presented below is a generic sample. The light curves will be the individual subjects and the dark curve will be the median curve (and will be dotted). Vertical lines will be at the vaccination time-points. The y-axis will be Spots per million PBMCs and the x-axis will be Study Day.



Figures with similar format:

Figure 14: Individual and Median ELISpot Responses by Study Day – Immunogenicity Population, Vaccine Group, HCV+ Subjects

Figure 15: Individual and Median ELISpot Responses by Study Day – Immunogenicity Population, Placebo Group, HCV+ Subjects

Figure 16: Boxplots of ELISpot Response to Peptide Pools at Study Day 63 – Immunogenicity Population

[Note: The figure presented below is a generic sample. The y-axis will be Spots per million PBMCs and the x-axis will have 7 points: one for all pools together, and 6 for the individual Peptide Pools, labeled as NS3p, NS3h, NS4, NS5A, NS5B I, NS5B II. Boxplots will be displayed for each pool. For subjects with multiple samples analyzed within the Study Day 63 window, the maximum response will be used.]

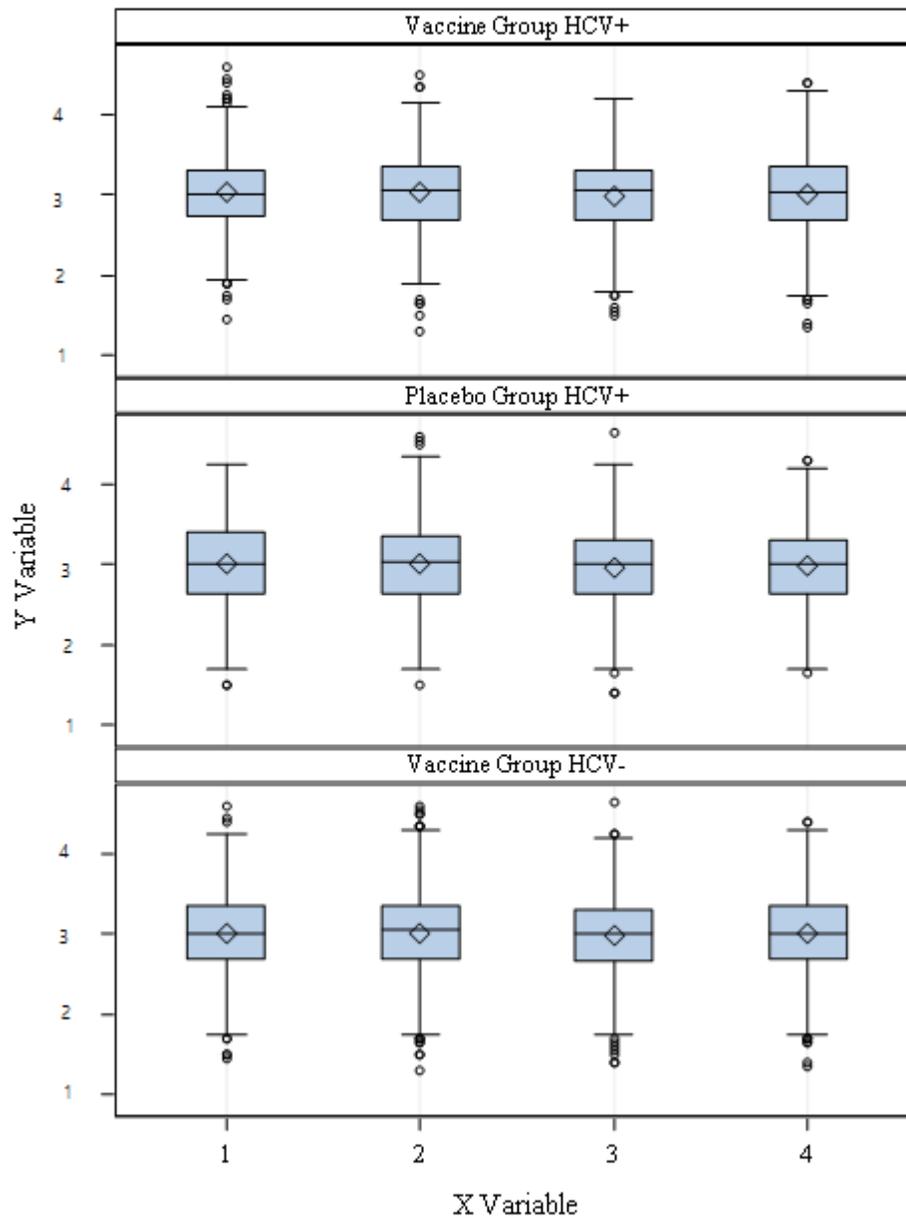


Figure 17: Number of Positive Peptide Pools by Study Day – Immunogenicity Population

[Note: The figure presented below is a generic sample. The y-axis will be Number of Positive Pools and the x-axis be Study Day. Mean and Standard error bars will be presented for each Study Day.]

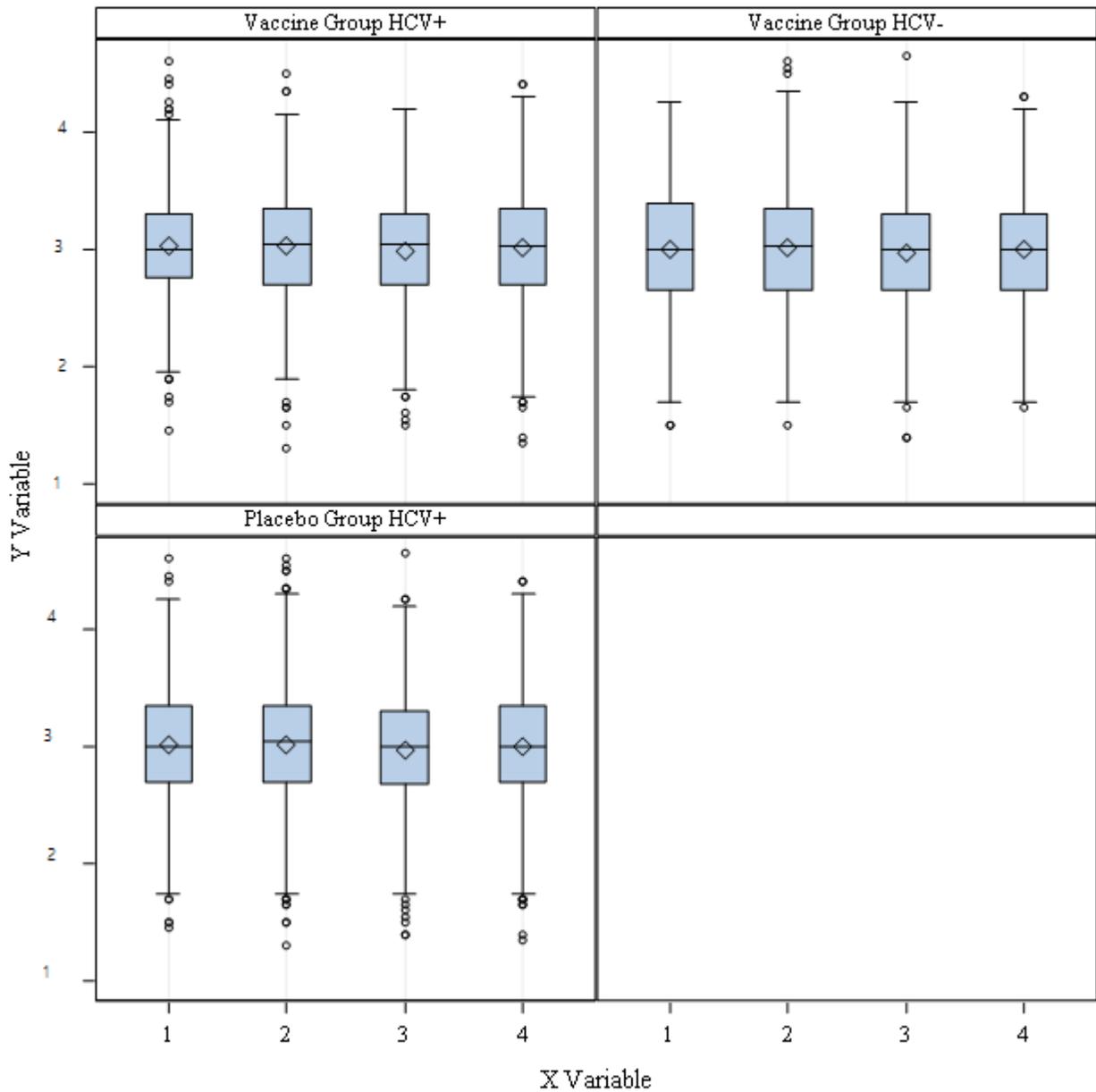


Figure 18: Boxplots of Maximum ELISpot Response to Peptide Pools – Immunogenicity Population

[Note: The figure presented below is a generic sample. The y-axis will be Spots per million PBMCs and the x-axis will be unlabeled. For subjects with multiple samples analyzed within the Study Day 63 window, the maximum response will be used.

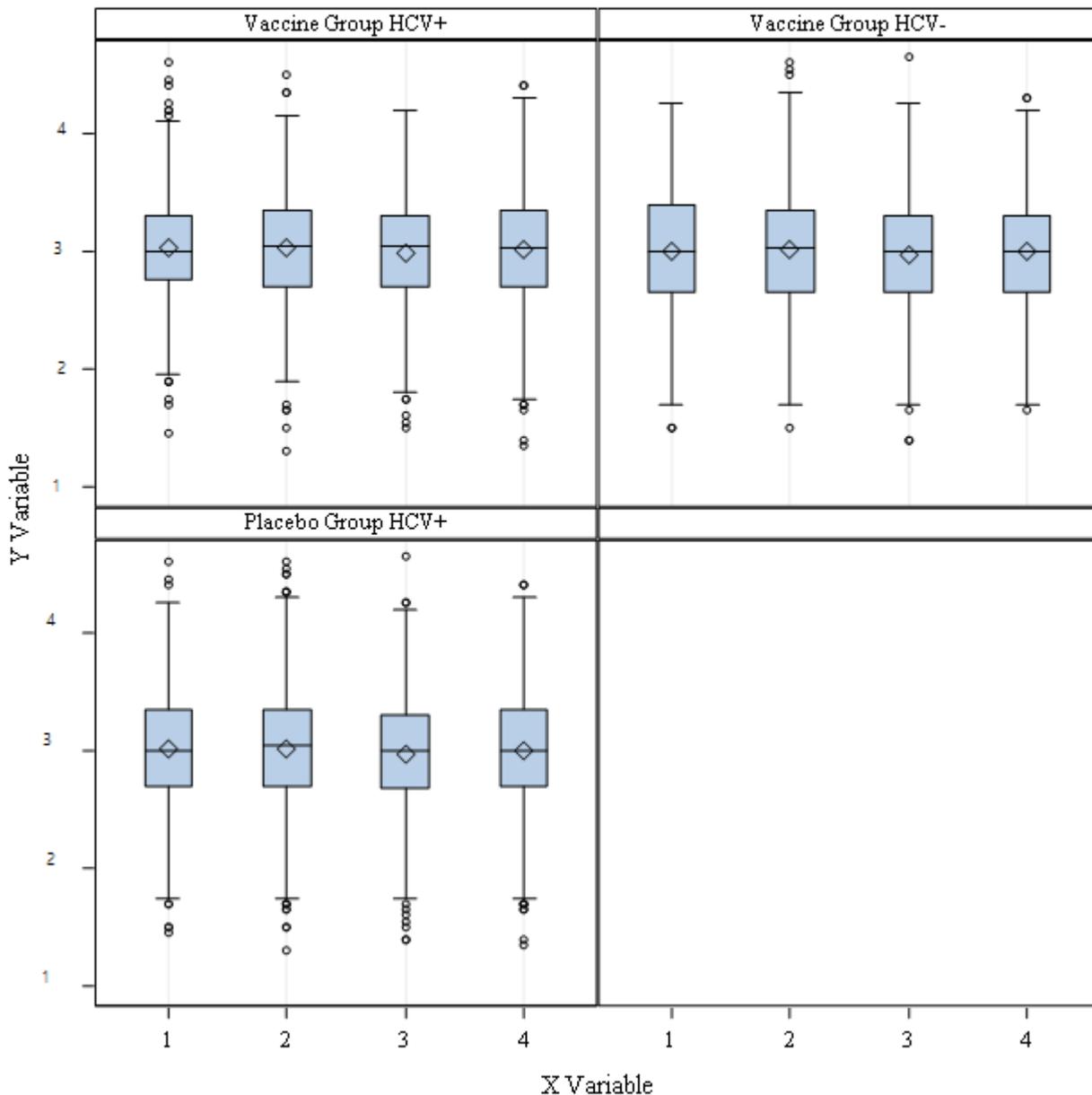
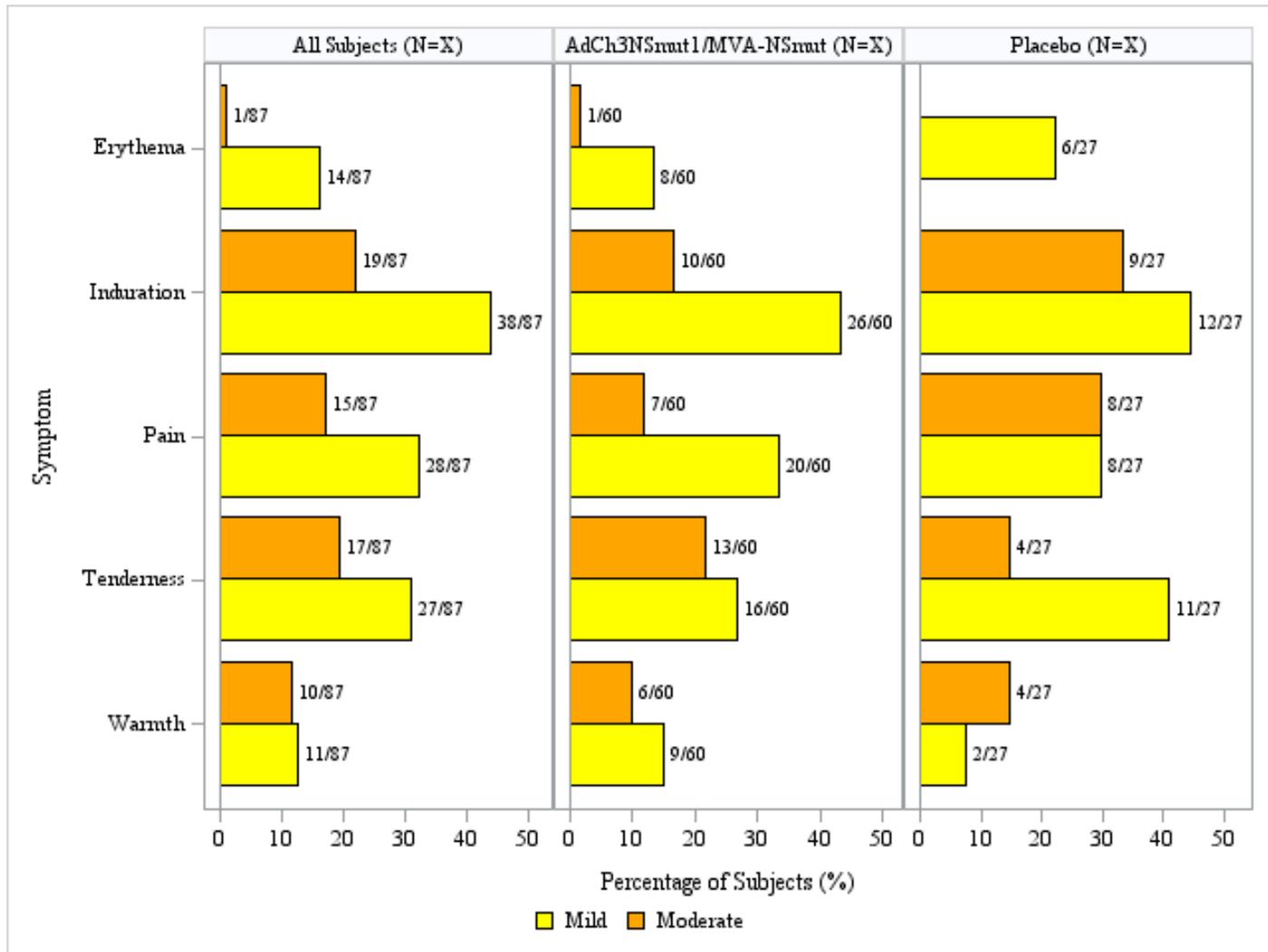


Figure 19: Maximum Severity of Solicited Local Adverse Events by Symptom and Treatment Group - Safety Population, Post Dose 1



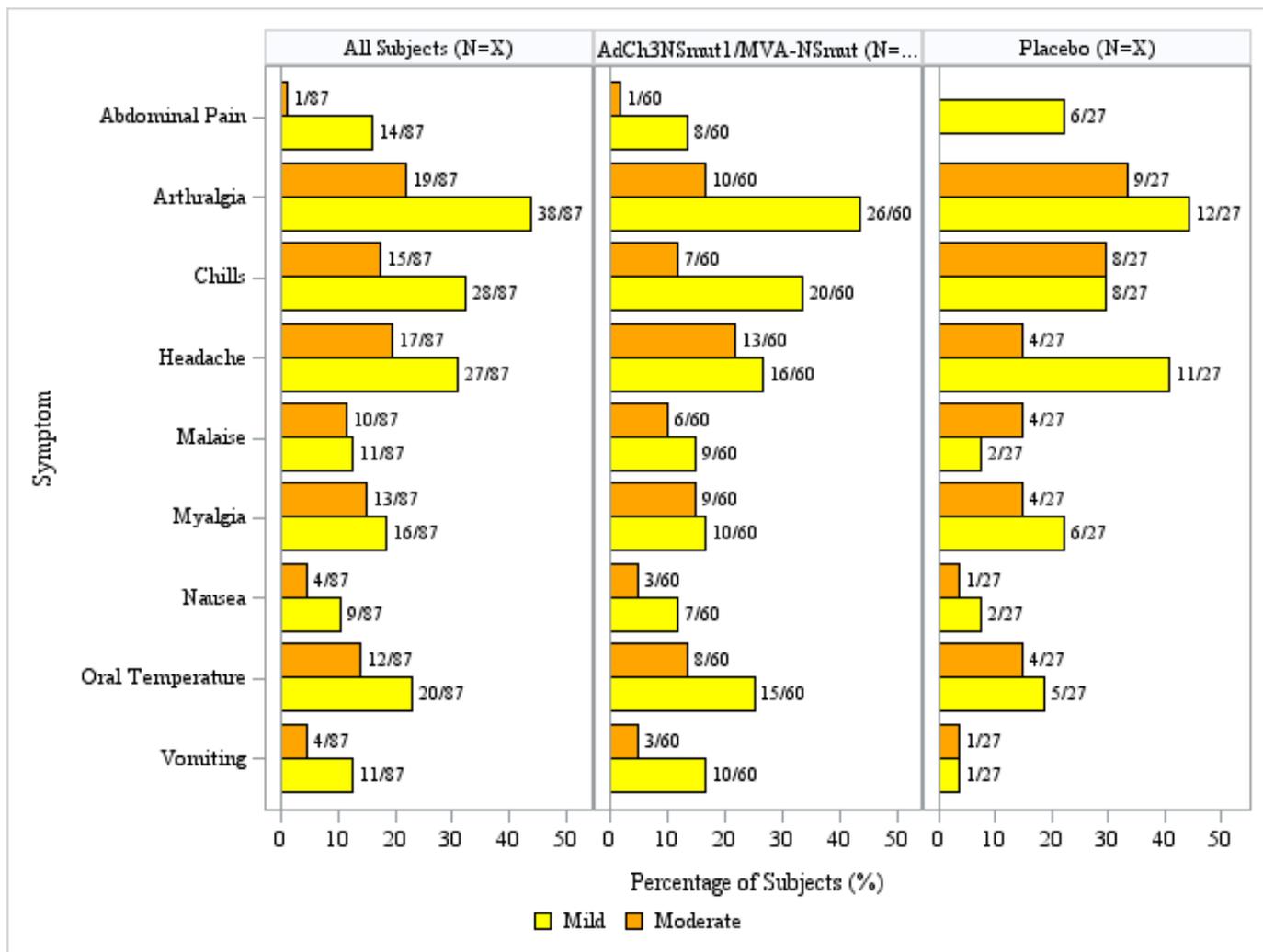
Programming notes:

- Add additional panels to break down by HCV Infection Status
- Treatment groups will read “Vaccine” and “Placebo”
- Bars will also be pattern coded
- For each symptom, the maximum severity will be displayed first (topmost)

Figures with similar format:

Figure 20: Maximum Severity of Solicited Local Adverse Events by Symptom and Treatment Group - Safety Population, Post Dose 2

Figure 21: Maximum Severity of Solicited Systemic Adverse Events by Symptom and Treatment Group - Safety Population, Post Dose 1



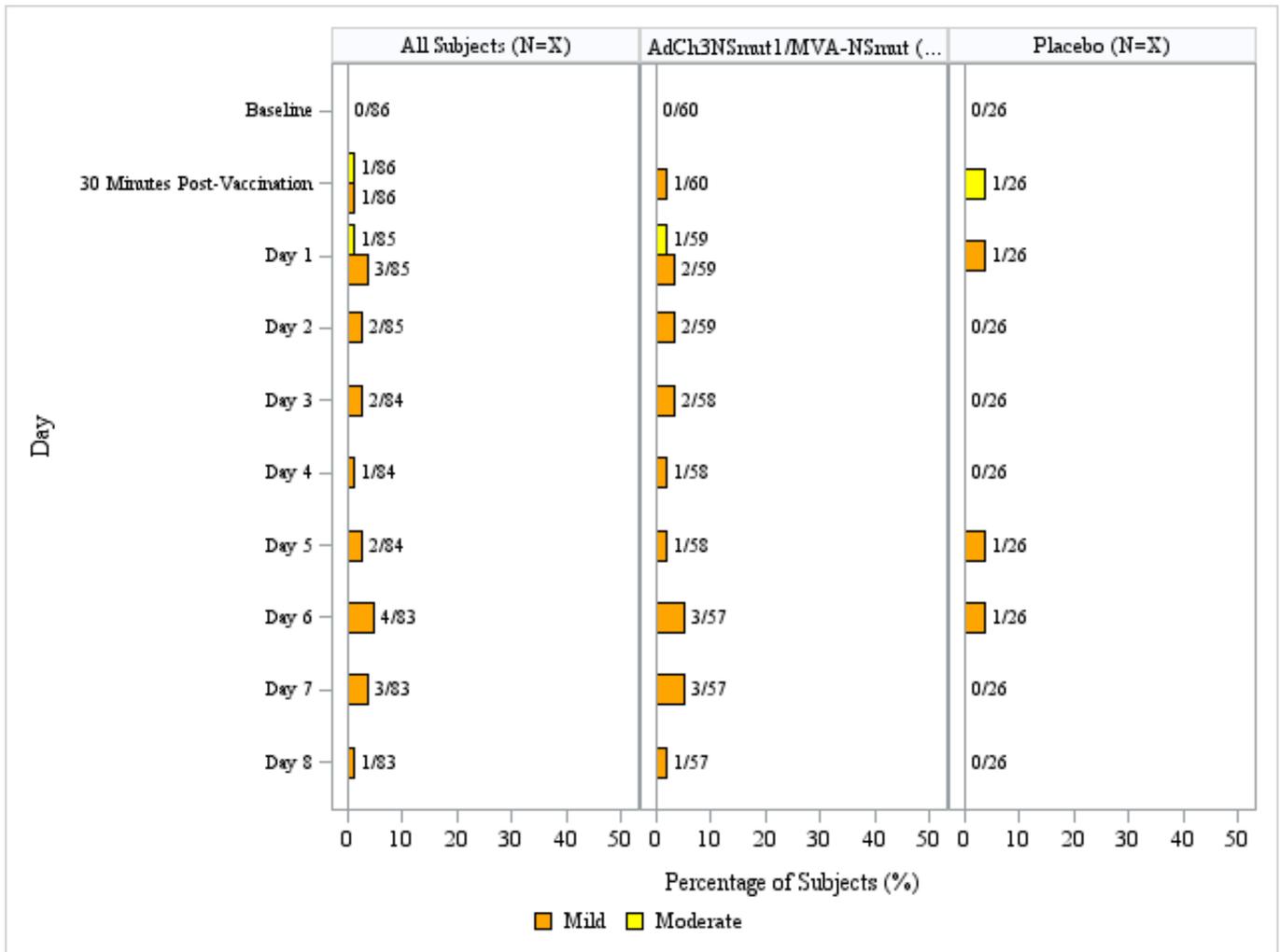
Programming notes:

- Add additional panels to break down by HCV Infection Status
- Treatment groups will read “Vaccine” and “Placebo”
- Bars will also be pattern coded
- For each symptom, the maximum severity will be displayed first (topmost)

Figures with similar format:

Figure 22: Maximum Severity of Solicited Systemic Adverse Events by Symptom and Treatment Group - Safety Population, Post Dose 2

Figure 23: Maximum Severity of Solicited Local Symptoms per Subject by Day Post Treatment—Safety Population—Dose 1



Programming note:

- Treatment groups will read “Vaccine” and “Placebo”
- Mild will be yellow, Moderate will be orange, Severe will be Red
- Bars will also be pattern coded
- For each day, the maximum severity will be displayed first (topmost)

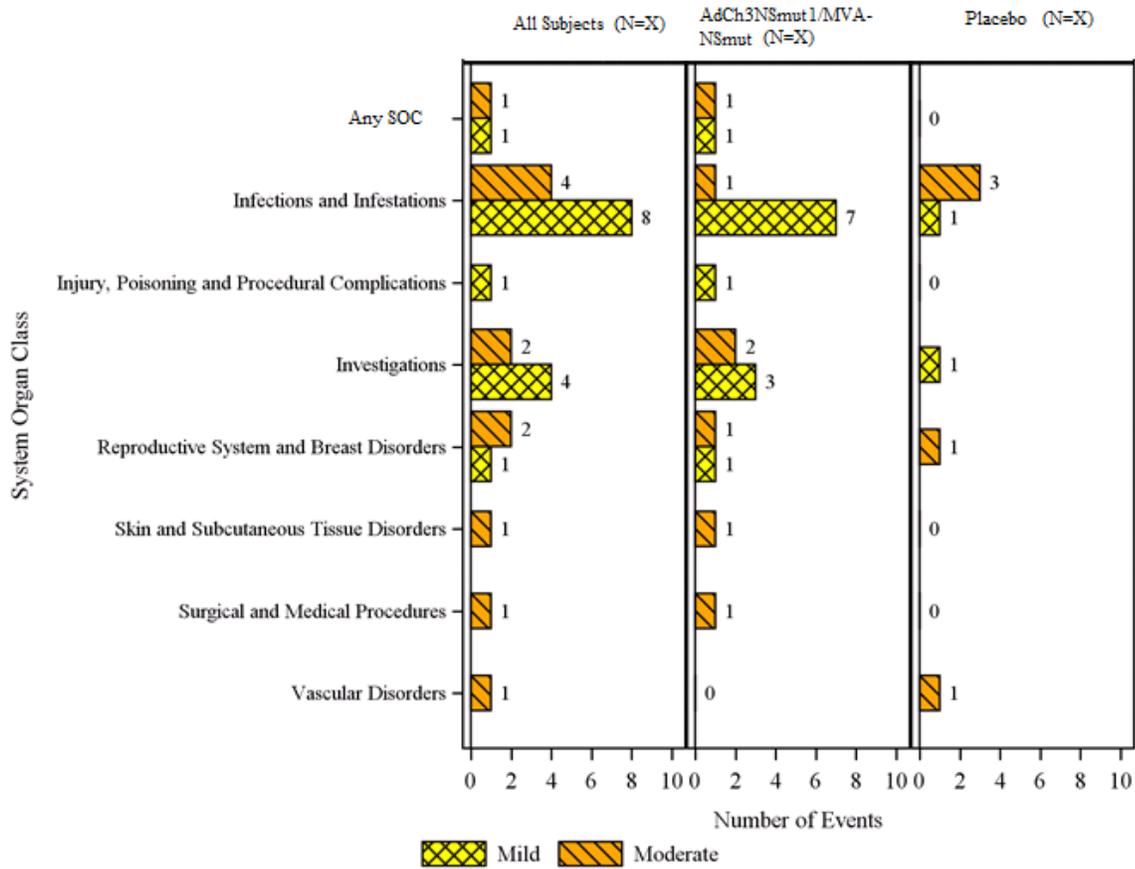
Figures with similar format:

Figure 24: Maximum Severity of Solicited Local Symptoms per Subject by Day Post Treatment—Safety Population—Dose 2

Figure 25: Maximum Severity of Solicited Systemic Symptoms per Subject by Day Post Treatment—Safety Population—Dose 1

Figure 26: Maximum Severity of Solicited Systemic Symptoms per Subject by Day Post Treatment—Safety Population—Dose 2

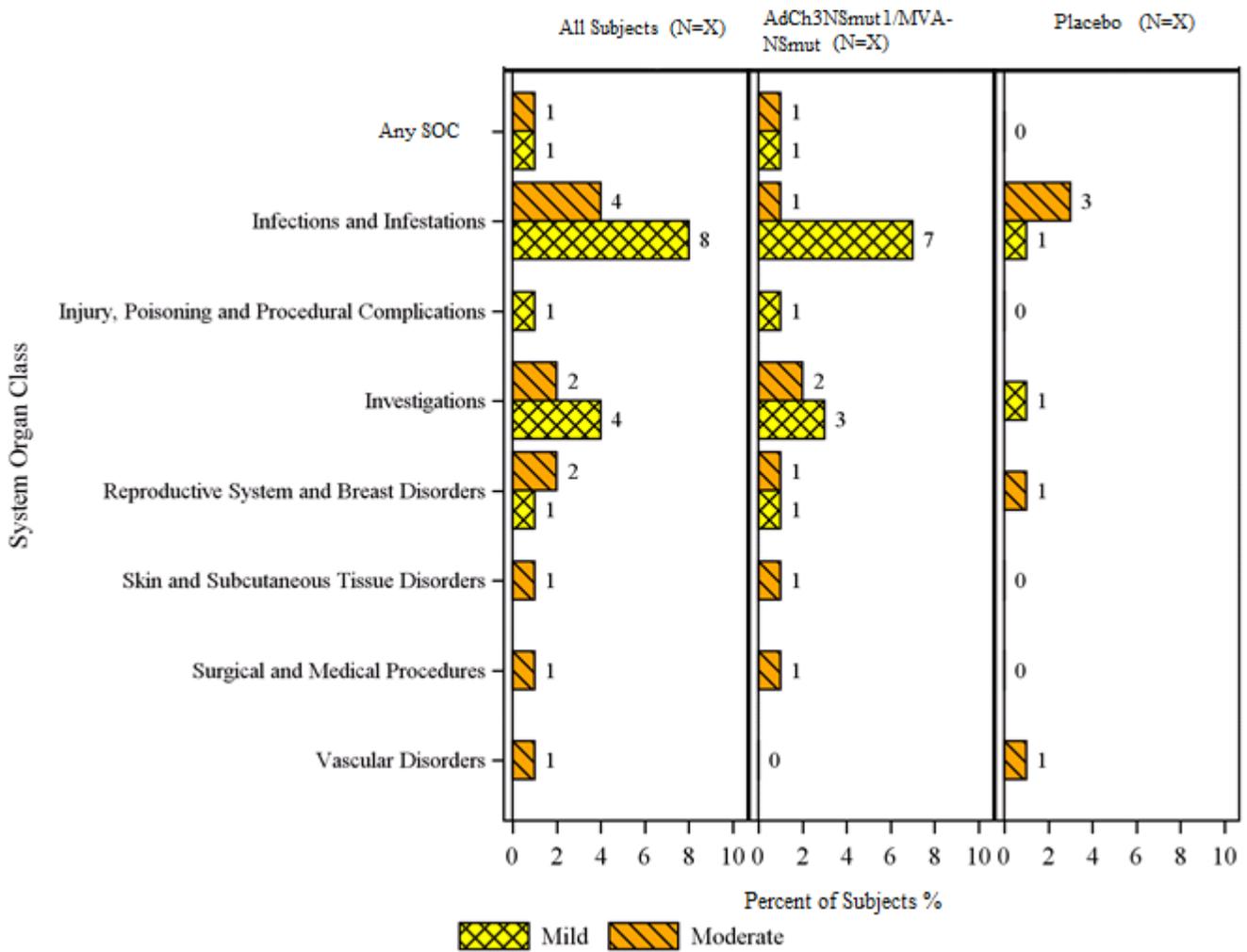
Figure 27: Frequency of Adverse Events by MedDRA System Organ Class and Severity



Programming notes:

- Treatment groups will read “Vaccine” and “Placebo”
- For each SOC, the maximum severity will be displayed first (topmost)

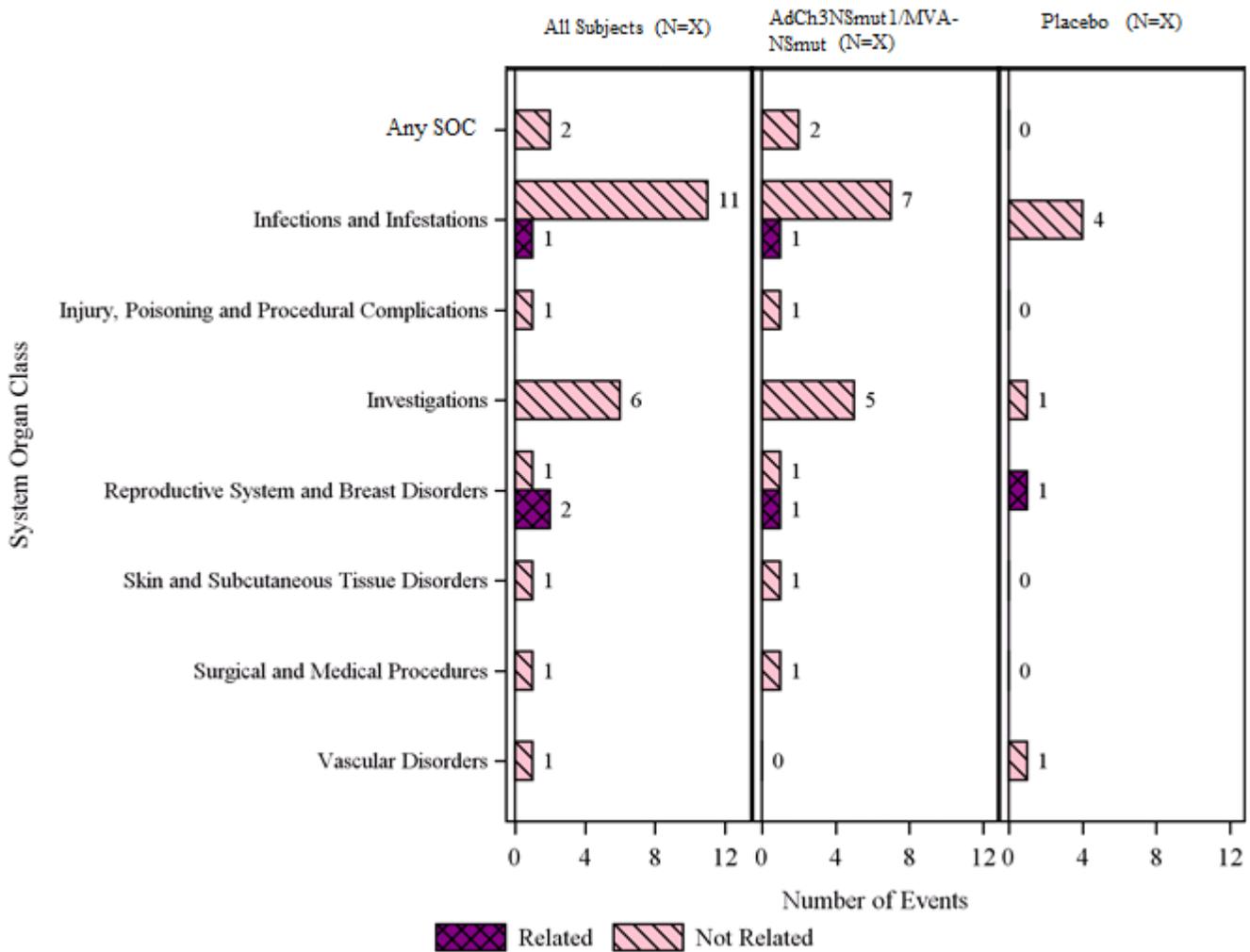
Figure 28: Incidence of Adverse Events by MedDRA® System Organ Class and Maximum Severity



Programming notes:

- Treatment groups will read “Vaccine” and “Placebo”
- For each SOC, the maximum severity will be displayed first (topmost)

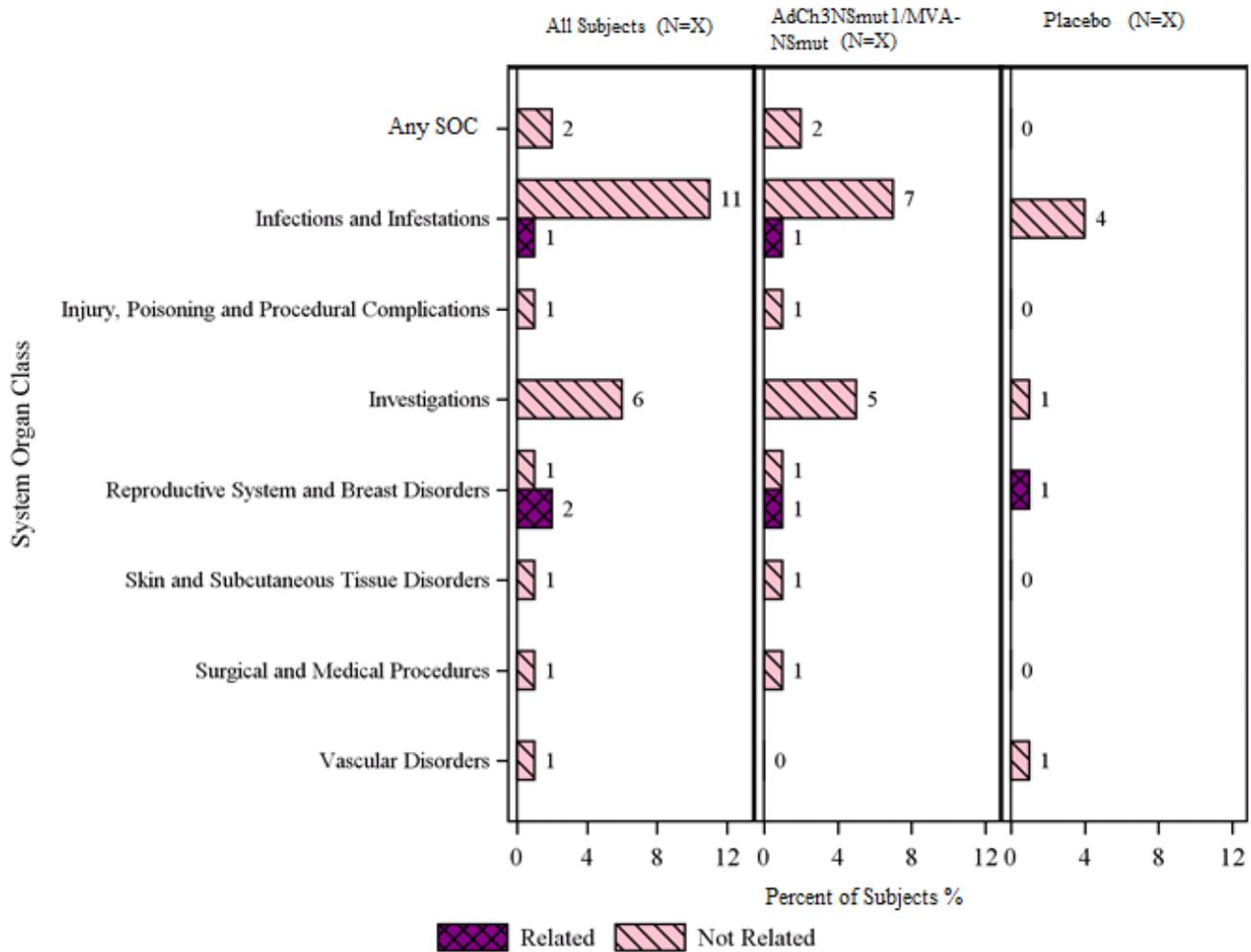
Figure 29: Frequency of Adverse Events by MedDRA System Organ Class and Relationship to Treatment



Programming notes:

- Treatment groups will read “Vaccine” and “Placebo”
- For each SOC, "Related" will be displayed first (topmost)

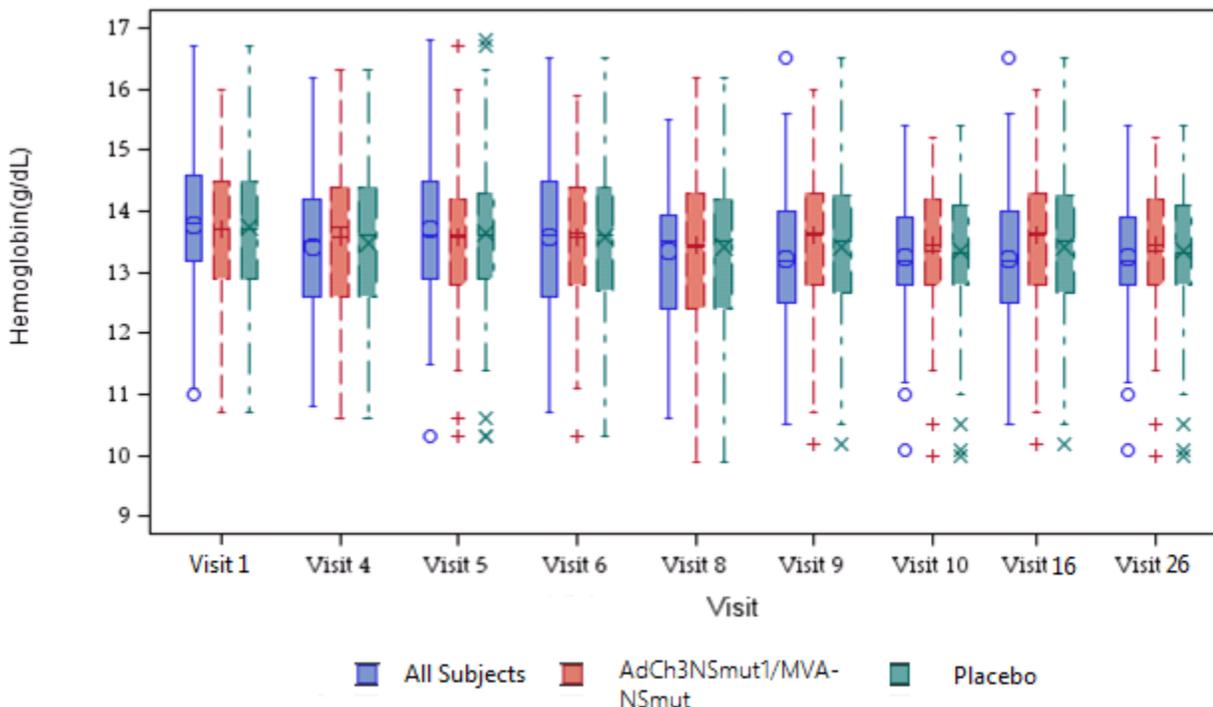
Figure 30: Incidence of Adverse Events by MedDRA System Organ Class and Relationship to Treatment



Programming notes:

- Treatment groups will read “Vaccine” and “Placebo”
- For each SOC, "Related" will be displayed first (topmost)

Figure 31: Laboratory Results by Scheduled Visit and Treatment Group –Safety Population, Uninfected HCV Status, Hemoglobin(g/dL)



Programming notes:

- Treatment groups will read “Vaccine” and “Placebo”

Figures with similar format:

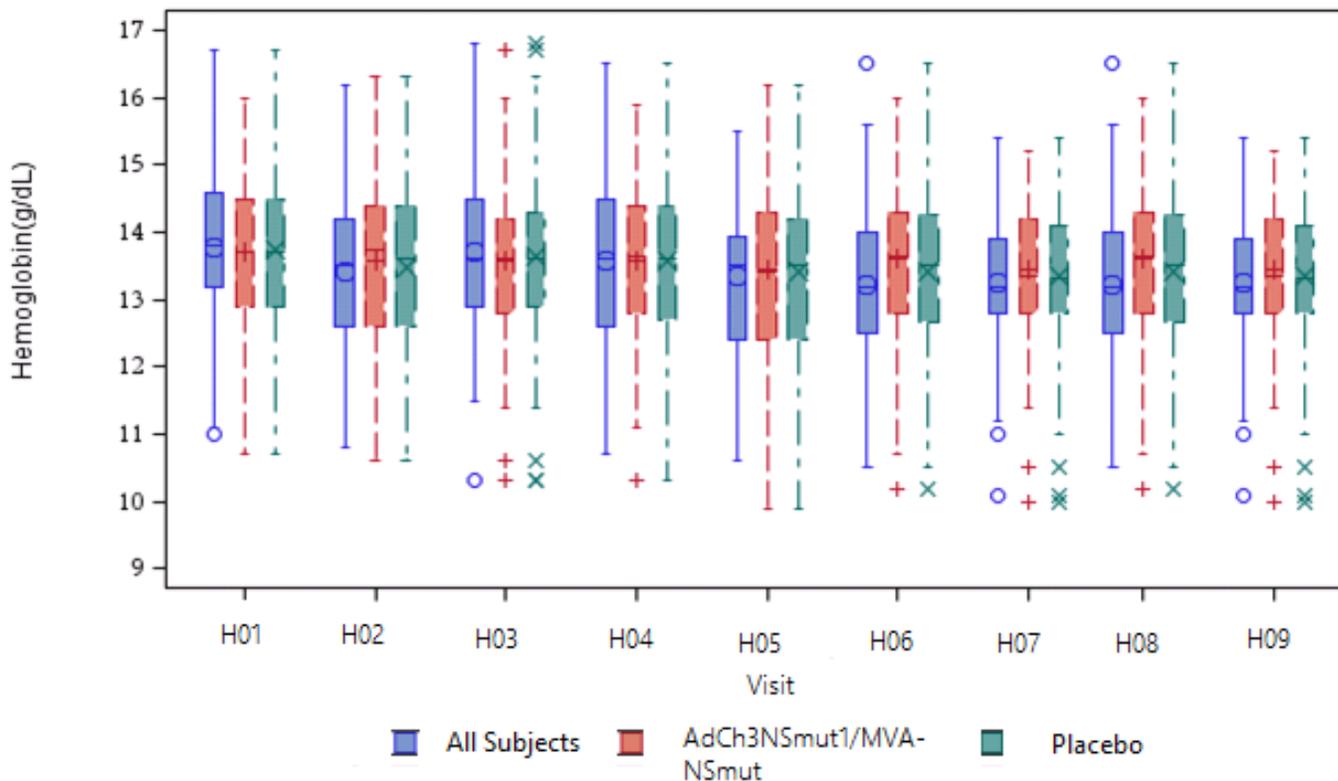
Figure 32: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group – Safety Population—Uninfected HCV Status, White Blood Cells (10^3 cells/ μ L)

Figure 33: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group– Safety Population— Uninfected HCV Status, Platelet Counts (10^3 cells/ mm^3)

Figure 34: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group– Safety Population— Uninfected HCV Status, Alanine Transferase (SGPT) (U/L)

Figure 35: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group Treatment Group– Safety Population— Uninfected HCV Status, Creatinine (mg/dL)

Figure 36: Laboratory Results by Scheduled Visit and Treatment Group –Safety Population, Infected HCV Status, Hemoglobin(g/dL)



Programming notes:

- Treatment groups will read “Vaccine” and “Placebo”

Figures with similar format:

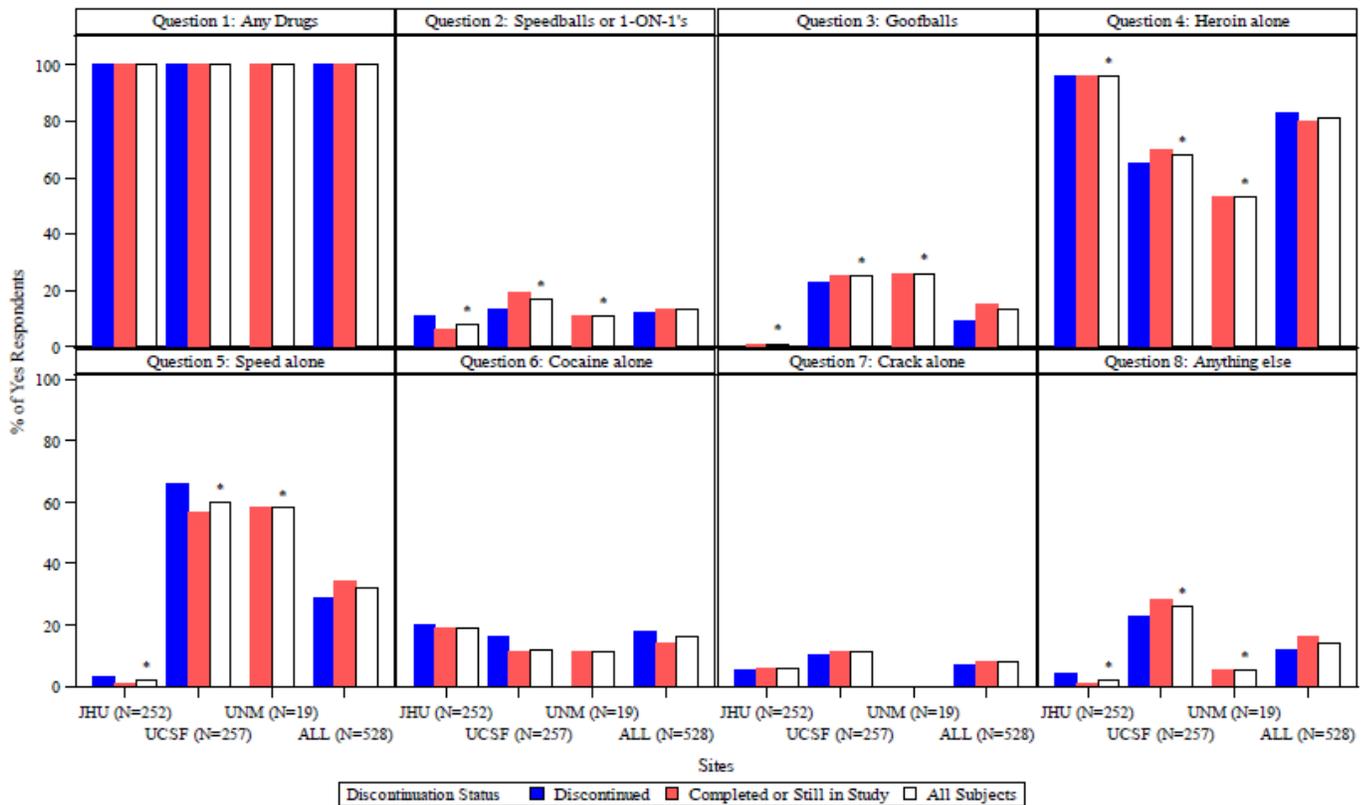
Figure 37: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group – Safety Population—Infected HCV Status, White Blood Cells (10^3 cells/ μ L)

Figure 38: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group– Safety Population— Infected HCV Status, Platelet Counts (10^3 cells/ mm^3)

Figure 39: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group– Safety Population— Infected HCV Status, Alanine Transferase (SGPT) (U/L)

Figure 40: Laboratory Results by Study Visits, Laboratory Parameter, and Treatment Group Treatment Group– Safety Population— Infected HCV Status, Creatinine (mg/dL)

Figure 41: Summary of Baseline Injection Drug Use by Site and Discontinuation Status - All Enrolled Subjects Completing at Least One Behavioral Questionnaire



* denotes that the Fisher's Exact Test for the comparison among sites resulted in a p-value < 0.05.
 + denotes that the Fisher's Exact Test for the comparison between discontinuation status resulted in a p-value < 0.05.
 # denotes that the Breslow Day Test for the test of homogeneity resulted in a p-value < 0.05.

Figures with similar format:

Figure 42: Summary of Baseline Injection Drug Use by Treatment Group and Discontinuation Status - All Enrolled Subjects Completing at Least One Behavioral Questionnaire

APPENDIX 3. LISTINGS MOCK-UPS

This document includes examples mock-ups of listings to present subject-level data.

Implementation notes:

- If no subjects receive the incorrect treatment only include one treatment group column
- In the CSR, Subject ID will be USUBJID

LISTINGS

Listing 1	Subjects Excluded from Analysis Populations	163
Listing 2	Subjects Whose Assigned Treatment Group does not Match Their Randomized Treatment Group-Safety Population.....	164
Listing 3	Subject Disposition-All Enrolled Subjects	165
Listing 4	Subject-Specific Protocol Deviations—All Enrolled Subjects.....	166
Listing 5	Non-Subject-Specific Protocol Deviations.....	167
Listing 6	Demographic Data—All Enrolled Subjects.....	168
Listing 7	Pre-Existing Medical Conditions—All Enrolled Subjects	169
Listing 8	Compliance Data- All Vaccinated Subjects	170
Listing 9	Solicited Events – Systemic Symptoms—Safety Population.....	171
Listing 10	Solicited Events – Local Symptoms—Safety Population	172
Listing 11	Unsolicited Adverse Events-Safety Population.....	173
Listing 12	Pregnancy Reports – Maternal Information	174
Listing 13	Pregnancy Reports – Gravida and Para	175
Listing 14	Pregnancy Reports – Live Birth Outcomes	176
Listing 15	Pregnancy Reports – Still Birth Outcomes	176
Listing 16	Pregnancy Reports – Spontaneous, Elective, or Therapeutic Abortion Outcomes	176
Listing 17	Clinical Laboratory Results – Biochemistry—Safety Population.....	177
Listing 18	Clinical Laboratory Results – Hematology—Safety Population.....	178
Listing 19	Vital Signs	179
Listing 20	Physical Exam Findings	180
Listing 21	Concomitant Medications-Safety Population.....	181
Listing 22	Substance Treatment-Safety Population.....	182
Listing 23	Immunogenicity Response Data- IFN- γ ELISpot.....	183
Listing 24	HCV Infection Status.....	183

Listing 25 HCV Positive Quantitative Results184
Listing 26 Genotyping and Sequencing Results and ERC Assessments185

Section 16.2 Database Listings by Subject

Listing 1 Subjects Excluded from Analysis Populations

Actual Treatment Group	Randomized Treatment Group	HCV Status	Subject ID	Analyses in which Subject is Included	Analyses from which Subject is Excluded	Results Available?	Reason(s) Subject Excluded	Censoring Day
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	[e.g., Safety, ITT, mITT, ATP, Immunogenicity]	[e.g., Safety, ITT, mITT, CC, ATP, Immunogenicity, Visit x]	Yes/No	xxxxx	xxx
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	[e.g., Safety, ITT, mITT, ATP, Immunogenicity]	[e.g., Safety, ITT, mITT, CC, ATP, Immunogenicity, Visit x]	Yes/No	xxxxx	xxx
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	[e.g., Safety, ITT, mITT, ATP, Immunogenicity]	[e.g., Safety, ITT, mITT, CC, ATP, Immunogenicity, Visit x]	Yes/No	xxxxx	xxx

Note: "Yes" in the "Results available" column indicates that available data were removed from the analysis. If "Yes" the population in which data were removed will be listed in parenthesis. "No" indicates that no data were available for inclusion in the analysis.

Implementation Notes:

- Sort order will be actual treatment group, Subject ID
- Reasons Subject Excluded should match the same verbiage that is used on the Analysis population tables

Listing 2 Subjects Whose Assigned Treatment Group does not Match Their Randomized Treatment Group-Safety Population

Subject ID	Treatment Group at Randomization	Treatment Actually Received
xxxxxx	Vaccine/Placebo	Vaccine/Placebo
xxxxxx	Vaccine/Placebo	Vaccine/Placebo
xxxxxx	Vaccine/Placebo	Vaccine/Placebo

Listing 3 Subject Disposition-All Enrolled Subjects

Actual Treatment Group	Randomized Treatment Group	HCV Status	Subject ID	Category	Study Day Corresponding to Early Termination/Treatment Discontinuation/Completion	Reason for Early Termination/Treatment Discontinuation
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	XXXXXXXX	Early Termination/Treatment Discontinuation/Completion	xx	XXXXXXXXXXXXXXXXXXXX
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	XXXXXXXX	Early Termination/Treatment Discontinuation/Completion	xx	---

Implementation Notes:

- Sort order will be by Actual Treatment Group, Subject ID, Category
- Category will be "Early Termination", "Completion" or "Treatment Discontinuation". If a subject discontinued treatment, they will have two records.
- In the “Reason” column, concatenate any “specify” fields, including AE number and DV number.

Listing 4 Subject-Specific Protocol Deviations—All Enrolled Subjects

Deviation Number	Study Day	Deviation Description	Deviation Category	Reason for Deviation	Deviation Affected Product Stability?	Deviation Resulted in AE?	Deviation Resulted in Subject Termination?	Deviation Resolution	Comments
Actual Treatment Group: , Randomized Treatment Group: , HCV Status: , Subject ID:									
xx	xx	xxxxxxx	xxxxxxxxxxx	xxxxxxx	Yes/No	Yes/No	Yes/No	Yes/No	xxxxxxxxxxx
xx	xx	xxxxxxx	xxxxxxxxxxx	xxxxxxx	Yes/No	Yes/No	Yes/No	Yes/No	--

Note: Deviation description column will contain all subfields concatenated together

Implementation Notes:

- Sort order will be by Actual Treatment Group, Subject ID, Deviation Number
- In the Deviation Category column concatenate any specify fields
- In the Reason for Deviation column concatenate any specify fields.

Listing 5 Non-Subject-Specific Protocol Deviations

Site	Deviation	Start Day	End Day	Reason for Deviation	Deviation Resulted in Subject Termination?	Deviation Affected Product Stability?	Deviation Category	Deviation Resolution	Comments
xxxx	xxxx	xx	xx	xxxx	Yes/No	Yes/No/NA	xxxx	xxxx	xxxx
xxxx	xxxx	xx	xx	xxxx	Yes/No	Yes/No/NA	xxxx	xxxx	xxxx

Note: Deviation column will contain all subfields concatenated together

Implementation Notes:

- Sort order will be by Site Name, Start Date
- In the Deviation Category column concatenate any specify fields
- In the Reason for Deviation column concatenate any specify fields.

Listing 6 Demographic Data—All Enrolled Subjects

Actual Treatment Group	Randomized Treatment Group	HCV Status	Subject ID	Sex	Age at Enrollment (years)	Ethnicity	Race	IL28B	Height (cm)	Weight (kg)	BMI
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	Male/Female	xx	xxxxxx	xxxxxx	CC/ CT/TT	xxx	xxx.x	xx.x
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	Male/Female	xx	xxxxxx	xxxxxx	CC/ CT/TT	xxx	xxx.x	xx.x
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	Male/Female	xx	xxxxxx	xxxxxx	CC/ CT/TT	xxx	xxx.x	xx.x

Implementation Notes:

- Sort order will be by Actual Treatment Group, Subject ID
- For the Race column, if a subject is Multi-Racial, all races will be listed, separated by a comma

Listing 7 Pre-Existing Medical Conditions—All Enrolled Subjects

Actual Treatment Group	Randomized Treatment Group	HCV Status	Subject ID	MH Number	Medical History Term	Condition Start Day	Condition End Day	MedDRA System Organ Class	MedDRA Preferred Term
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	xxx	xxxxxx	xx	xx	xxxxxx	xxxxxx
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	xxx	xxxxxx	xx	xx	xxxxxx	xxxxxx

Implementation Notes:

- Sort order is Actual Treatment Group, Subject ID, MH Number.
- "Condition Start Day" and "Condition End Day" are relative to enrollment (which is Day 1, day before enrollment is Day -1). Rather than use exact study days, categorize as follows:
 - > 5 years prior to enrollment
 - 1-5 years prior to enrollment
 - -1-12 months prior to enrollment
 - -Within 1 month of enrollment
 - -During Study
 - -If Ongoing at the end of the study, display "Ongoing" in the "Condition End Day" column.
 - -If ending is unknown at the end of the study, display "Unknown" in the "Condition End Day" column.

Listing 8 Compliance Data- All Vaccinated Subjects

Actual Treatment Group	Randomized Treatment Group	HCV Status	Subject ID	Dose 1 Study Day	Dose 1 Time	Dose 1 Administration Site	Dose 2 Study Day	Dose 2 Time	Dose 2 Administration Site	Missed Doses
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	xx	xx:xxx	Left Arm/Right Arm	xx	xx:xxx	Left Arm/Right Arm	Dose 1/Dose 2

Implementation Notes:

- Sort order is Actual Treatment Group, Subject ID.
- If Dose 1 or Dose 2 is missed, list which dose in “Missed Doses” column if no doses are missed populate cell with “N/A”

Listing 9 Solicited Events – Systemic Symptoms—Safety Population

Vaccination	Study Day	Pre/Post Vaccination Day	Oral Temperature	Headache	Malaise	Myalgia/Body Ache	Nausea	Vomiting	Chills	Abdominal Pain	Arthralgia/Joint Pain
Actual Treatment Group: , Randomized Treatment Group: , HCV Status: , Subject ID:											
1	xxx	Pre-Vac	xxxx (Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
1	xxx	30 Min Post-Vac	xxxx (Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
1	xxx	Day 0	xxxx(Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
1	xxx	Day 1	xxxx(Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
1	xxx	Day 2	xxxx(Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
1	xxx	Day 3	xxxx(Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
1	xxx	Day 4	xxxx(Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
1	xxx	Day 5	xxxx(Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
1	xxx	Day 6	xxxx(Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx
1	xxx	Day 7	xxxx(Grade)	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx

Listing 10 Solicited Events – Local Symptoms—Safety Population

Vaccination	Study Day	Pre/Post Vaccination Day	Pain	Tenderness	Warmth	Erythema (Length)	Erythema (Functional Grade)	Induration (Length)	Induration (Functional Grade)
Actual Treatment Group: , Randomized Treatment Group: , HCV Status: , Subject ID:									
x	xxx	30 Min Post-Vac	xxxx	xxxx	xxxx	x	xxxx	x	xxxx
x	xxx	Day 0	xxxx	xxxx	xxxx	x	xxxx	x	xxxx
x	xxx	Day 1	xxxx	xxxx	xxxx	x	xxxx	x	xxxx
x	xxx	Day 2	xxxx	xxxx	xxxx	x	xxxx	x	xxxx
x	xxx	Day 3	xxxx	xxxx	xxxx	x	xxxx	x	xxxx
x	xxx	Day 4	xxxx	xxxx	xxxx	x	xxxx	x	xxxx
x	xxx	Day 5	xxxx	xxxx	xxxx	x	xxxx	x	xxxx
x	xxx	Day 6	xxxx	xxxx	xxxx	x	xxxx	x	xxxx
x	xxx	Day 7	xxxx	xxxx	xxxx	x	xxxx	x	xxxx

Listing 11 Unsolicited Adverse Events-Safety Population

Adverse Event	Associated with Dose No.	No. of Days Post Associated Dose (Duration)	Severity	SAE?	Relationship to Study Treatment	In Not Related, Alternative Etiology	Action Taken with Study Treatment	Subject Discontinued Due to AE	Outcome	MedDRA System Organ Class	MedDRA Preferred Term
Actual Treatment Group: , HCV Status: , Subject ID: , AE Number:											
xxxxxx	xx	xx (xx)	xxxxxxx	Y/N	xxxxxxx	xxxxxxx	xxxxxxx	Y/N	xxxxxxx	xxxxxxx	xxxxxxx
Comments: xxxxxxxxxxxxxx											
Actual Treatment Group: , HCV Status: , Subject ID: , AE Number:											
xxxxxx	xx	xx (xx)	xxxxxxx	Y/N	xxxxxxx	xxxxxxx	xxxxxxx	Y/N	xxxxxxx	xxxxxxx	xxxxxxx
Comments: xxxxxxxxxxxxxx											
Note: For additional details about SAEs, see Table: xx.											

Implementation Notes:

- Sort order is Subject ID, AE Number.
- Shaded rows will be in the SAS color LTGRAY light gray #C0C0C0

Listing 12 Pregnancy Reports – Maternal Information

Actual Treatment Group	Actual Treatment Group	Subject ID	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?
Vaccine/Placebo	Vaccine/Placebo	xxxxxxx x	xx	xx	xxx	xxx	xxx	xxx	Y/N	Y/N	Y/N	Y Y/N /N
Vaccine/Placebo	Vaccine/Placebo	xxxxxxx x	xx	xx	xxx	xxx	xxx	xxx	Y/N	Y/N	Y/N	Y Y/N /N

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

Implementation Notes:

1. Sort order is actual treatment group, Subject ID
2. If all subjects received the correct treatment, only display “Treatment Group”.

Listing 13 Pregnancy Reports – Gravida and Para

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

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

Listing 14 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?
xxxxxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	Y/N	xxx
xxxxxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	xxx	Y/N	xxx

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

Listing 15 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?
xxxxxx	xx	xxx	xxxxxxx	Y/N	xxxxxxx	xxx	xxx	xx	Y/N	Y/N	xxxxxxx

Listing 16 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
xxxxxx	xx	xxx	xxxxx	xxxxx	Y/N	xxxxxxx

Listing 17 Clinical Laboratory Results – Biochemistry—Safety Population

Subject ID	Randomized Treatment Group	Actual Treatment Group	HCV Status	Age (years)	Sex	Study Day	Alanine Aminotransferase (U/L)	Creatinine (mg/dL)
xxxxx	Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xx	Male/Female	xx	XXXX	X.XX
xxxxx	Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xx	Male/Female	xx	XXXX	X.XX

Implementation Notes:

- Sort order is Subject ID, Study Day.
- Toxicity grades can be found in Appendix B of the Protocol. If a lab has a toxicity Grade of 1 , 2 or 3, then put grade in parenthesis after the result. (i.e. 90 (Gr 3). If the toxicity grade is an increase, then add a "+" to the grade (i.e. +Gr 3). If a toxicity grade is a decrease, then add a '-' to the grade (i.e. -Gr 3). Note: all of the above biochemistry labs have a toxicity grading scale.

Listing 18 Clinical Laboratory Results – Hematology—Safety Population

Subject ID	Randomized Treatment Group	Actual Treatment Group	HCV Status	Age (years)	Sex	Study Day	Hemoglobin (g/dL)	Platelets (10 ³ cells/mm ³)	White Blood Cell Count (10 ³ cells/ μ L)
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xx	Male/Female	xx	XX.X	XXX	XX.XX
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xx	Male/Female	xx	XX.X	XXX	XX.XX

Implementation Notes:

- Sort order is Subject ID, Study Day.
- Toxicity grades can be found in Appendix B of the Protocol. If a lab has a toxicity Grade of 1 , 2 or 3, then put grade in parenthesis after the result. (i.e. 90 (Gr 3). If the toxicity grade is an increase, then add a "+" to the grade (i.e. +Gr 3). If a toxicity grade is a decrease, then add a '-' to the grade (i.e. -Gr 3). Note: all of the above hematology labs have a toxicity grading scale.

Listing 19 Vital Signs

Study Visit	Study Day of Assessment	Temperature (°F)	Systolic Blood Pressure (mmHg)	Diastolic Blood Pressure (mmHg)	Pulse (beats/min)	Respiratory Rate (breaths/min)
Subject ID: , Randomized Treatment Group: , Actual Treatment Group: , HCV Status:						
XXXXXXXXXX	XX	XX	XX	XX	XX	XX
XXXXXXXXXX	XX	XX	XX	XX	XX	XX
Subject ID: , Randomized Treatment Group: , Actual Treatment Group: , HCV Status:						
XXXXXXXXXX	XX	XX	XX	XX	XX	XX

Implementation Notes:

- Sort order is actual treatment group, Subject ID, Study Day.

Listing 20 Physical Exam Findings

Actual Treatment Group	Randomized Treatment Group	HCV Status	Subject ID	Study Day	Body System	Abnormal Finding	Reported as an AE? (AE Description; AE Number)
Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxxx	xxx	xxxxxxxx	xxxxxxxx	Yes/No xxxxxx; xx

Implementation Notes:

- Sort order is actual treatment group, Subject ID, Study Day.
- Only abnormal findings will be presented.
- If the physical exam was reported as an AE, then concatenate the Physical exam with the Adverse Events by AENUM and report the AETERM, plus the AE Number

Listing 21 Concomitant Medications-Safety Population

Subject ID	Randomized Treatment Group	Actual Treatment Group	HCV Status	Concomitant Medication Number	Medication	Medication Start Day	Medication End Day	Indication	Taken for an AE? (AE Description; AE Number)	Taken for a condition on Medical History? (MH Description; MH Number)
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xx	xxxxxx	xx	xx	xxxxxx	Yes/No xxxxx; xx	Yes/No xxxxx; xx
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xx	xxxxxx	xx	xx	xxxxxx	Yes/No xxxxx; xx	Yes/No xxxxx; xx

Implementation Notes:

- Sort order is Subject ID, concomitant medication number.
- Medication Start Day' and 'Medication End Day' are relative to enrollment (which is Day 1, day before enrollment is Day -1). For medication start dates that are > 30 days prior to enrollment, rather than use exact days, categorize as follows:
 - > 5 years prior to enrollment
 - 1- 5 years prior to enrollment
 - 1-12 months prior to enrollment.
 - For 'Medication End Day', if medication is Ongoing, display 'Ongoing' in the Medication End Day' column.
 - For 'Medication End Day', if end of medication is unknown, display 'Unknown' in the 'Medication End Day' column.
- If a Medication is taken for an AE, then concatenate the conmed with the Advere Events by AENUM and report the AETERM, plus the AE Number.
- If a Medication is taken for an MH, then concatenate the conmed with the Medical History event by MHNUM and report the MHTERM, plus the MH Number.
- Include the birth control information in this dataset. The birth control information is coming from the RP/SUPPRP or BC1 dataset.

Listing 22 Substance Treatment-Safety Population

Subject ID	Randomized Treatment Group	Actual Treatment Group	HCV Status	Program Type	Reason(s) for Treatment	Program Start Day	Program End Day	Comments
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xxxxxx	xxxxxx	xx	xx	xxxxxx
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Infected/Uninfected	xx	xxxxxx	xx	xx	xxxxxx

Implementation Notes:

- Sort order is Actual Treatment group, Subject ID
- If multiple reasons are selected, combine all with a comma between each
- If Program is ongoing, fill End Day column with “ongoing”

Section 16.2.6 Individual Efficacy and Immunogenicity Response Data

Listing 23 Immunogenicity Response Data- IFN- γ ELISpot

Actual Treatment Group	Randomized Treatment Group	Subject ID	Peptide Pool	Planned Study Day	Actual Study Day	Replicate 1	Replicate 2	Replicate 3
Vaccine/Placebo	Vaccine/Placebo	XXXXXXXX	xx/Control	xxx	xxx	xxx	xxx	xxx
Vaccine/Placebo	Vaccine/Placebo	XXXXXXXX	xx/Control	xxx	xxx	xxx	xxx	xxx

Implementation notes:

- Sort order is actual treatment group, subject ID
- Peptide Pool will be one of: NS3p, NS3h, NS4, NS5a, NS5bI, NS5bII, Control
- Replicate values will be the raw values received from the lab

Listing 24 HCV Infection Status

Actual Treatment Group	Randomized Treatment Group	Subject ID	Study Day of first quantitative HCV positive blood draw	Was the subject be enrolled in the Confirmed HCV Infection segment?	Was the subject referred for HCV treatment? (Study Day of referral)
Vaccine/Placebo	Vaccine/Placebo	XXXXXXXX	xxx	Y/N	Y/N (xxx)
Vaccine/Placebo	Vaccine/Placebo	XXXXXXXX	xxx	Y/N	Y/N (xxx)

Implementation notes:

- Sort order is actual treatment group, subject ID
- If the reason the subject was not notified was ‘Other’ Include the specify field in the cell

Listing 25 HCV Positive Quantitative Results

Subject ID	Actual Treatment Group	Randomized Treatment Group	Incident Infection/ First Positive Result	H01	H02	H03	H04	H05	H06	H07	H08	H09
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Visit	Visit	Visit	Visit	Visit	Visit	Visit	Visit	Visit	Visit
			Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Visit	Visit	Visit	Visit	Visit	Visit	Visit	Visit	Visit	Visit
			Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result	Study Day Result

Note: HCV+ quantitative results that were collected at supplemental visits are not included in the report

Implementation notes:

- Sort order is actual treatment group, subject ID

Listing 26 Genotyping and Sequencing Results and ERC Assessments

				Genotyping Results			Sequencing Evaluation		ERC Assessment			
Subject ID	Actual Treatment Group	Randomized Treatment Group	ATP Status	Incident Infection/H01	H06	H09	Incident/H01-H06 Sequence Evaluation	Incident/H01-H09 Sequence Evaluation	Per Protocol 6-Month Chronic Infection?	Per Protocol 9-Month Chronic Infection?	ERC Expert Opinion	Other Committee comments
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Y/N	Visit Study Day Result Genotype	Visit Study Day Result Genotype	Visit Study Day Result Genotype	Same strain/Null	Same strain/Null	Y/N	Y/N	xxxxxx	xxxxxx
xxxxxx	Vaccine/Placebo	Vaccine/Placebo	Y/N	Visit Study Day Result Genotype	Visit Study Day Result Genotype	Visit Study Day Result Genotype	Same strain/Null	Same strain/Null	Y/N	Y/N	xxxxxx	xxxxxx

Note: Per Protocol Section 3.1.2: chronic HCV infection at 6 months defined by persistent viremia over a period of 6 months after incident detection of primary infection.

Persistent viremia will be determined by: (1) the presence of the same virus (as confirmed by HCV core-E1 phylogenetic analysis testing) in blood samples collected at the first visit where HCV RNA is detected (incident infection), and a subsequent sample collected at month 6 (not less than 159 or more than 201 days following incident infection) and (2) third HCV RNA positive sample taken at a time point in between these two samples (incident and month 6). If there are two or more samples within the 159 to 201 day window for the month 6 collection, the test result from the collection date closest to 180 days after incident infection will be used.

HCV+ quantitative results that were collected at supplemental visits are not included in the report.

Programming Notes:

- If subject early terminated, print “Early Termination” in cell.
- If result is undetectable print “Undetectable” in cell
- Sort order is actual treatment group, subject ID