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PARTICIPANT INFORMATION SHEET

Full Title: A phase 1, first-in-human safety and immunogenicity study of a Marburg virus vaccine, ChAdOx1 Marburg, in healthy volunteers aged 18 – 55 years in the UK.

Short title: A study of a new vaccine against Marburg virus in adults aged 18 – 55 years

Study acronym: MAGIC-01 (Marburg Immunisation using ChAdOx)

You are invited to take part in a research project organised and sponsored by the University of Oxford and carried out by Oxford Vaccine Group. Before you decide whether to take part it is important for you to understand why the research is being done and what it will involve. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. Take time to decide whether you wish to take part.

We want to recruit 66 people aged 18-55 years to take part in a study of a new vaccine against **Marburg virus**, an infection which can cause life-threatening disease. Our vaccine is called **ChAdOx1 Marburg and this is the first time it will be given to humans ("first-in-human" study).**

All participants will receive either a single dose of ChAdOx1 Marburg, or **two doses** 12 weeks apart. Each dose of the vaccine is given as an injection in the arm. All participants will be followed up with a series of visits over **one year** following the first vaccination.

The main purpose of the study is to assess the safety of the vaccine, as well as the immune response which develops in people who are vaccinated.

There is no risk of contracting Marburg virus from the vaccine itself, and you will not be exposed to Marburg virus at any point during this study.

If you have any questions about the study that you would like to discuss with the study team, please contact us at info@ovg.ox.ac.uk or 01865611400.

Oxford Vaccine Group, University of Oxford

Centre for Clinical Vaccinology & Tropical Medicine (CCVTM)

Churchill Hospital, Oxford, OX3 7LE.

Summary

Who can take part?	Adults aged between 18 and 55 years in good health.
Vaccine being tested	Single dose or two doses of ChAdOx1 Marburg (12 weeks apart), given as injections into the arm
Number of participants	66
Study Aims	1. To assess safety and immune response to the vaccine. 2. To determine if the immune response to the vaccine is different in people who have previously received a ChAdOx-based vaccine compared with people who have not 3. To compare the immune response to one dose of the vaccine with that to two doses of the vaccine
Chief Investigator	Dr Simon Drysdale (Oxford Vaccine Group, University of Oxford)
Principal Investigator	Dr Simon Drysdale
Study Site	Oxford Vaccine Group, University of Oxford Centre for Clinical Vaccinology & Tropical Medicine (CCVTM), Churchill Hospital, Oxford, OX3 7LE
Length of study	1 year from the first vaccination
What happens in the study?	• You will first attend a screening visit to discuss the study, decide on eligibility to take part and provide written consent • You will receive either a single dose of ChAdOx1 Marburg vaccine, or two doses 12 weeks apart • You will be asked to record any symptoms following vaccination in an electronic diary • The first six participants in the study will attend a total of 13 study visits (1 screening, 2 vaccination and 10 follow up visits) • Group 2 (40 participants) will attend a total of 15 study visits (1 screening, 2 vaccination and 12 follow up visits) • Group 3 (20 participants) will attend a total of 11 study visits (1 screening, 1 vaccination and 9 follow up visits) • All visits will include a blood test More details can be found on pages 8-12.
Total reimbursement	First 6 participants (13 visits): <up to £1,290> Group 2 (40 participants, 15 visits): <up to £1,470> Group 3 (20 participants, 11 visits): <up to £1,060> An additional £90 reimbursement will be provided for any unscheduled visits.
Risks of participation	• Post vaccine symptoms such as mild discomfort of the arm and fever, usually no more than a few days • As this is the first time this vaccine has been used the side effects are unknown, so close safety monitoring is required • Bruising and pain following blood sampling

	More details on the risks can be found on pages 17–20.
Benefits of participation	By participating in this study, you will help research into the development of a safe and effective vaccine to protect against Marburg virus, but you will not directly receive any personal health benefit from the study or its procedures.

Contents

Who are the Oxford Vaccine Group?

The Oxford Vaccine Group (OVG) is part of the Department of Paediatrics at the University of Oxford. We conduct studies of new and improved vaccines for children and adults, and have a large amount of experience in running clinical studies. Our study teams include doctors, research nurses, research practitioners, project managers, statisticians, quality assurance managers, IT managers and administrative staff.

What is Marburg virus?

Marburg virus is a life-threatening infection closely related to Ebola virus. It is naturally carried by bats, and is found in sub-Saharan Africa. Infection can be spread from person to person through direct contact with infected blood or body fluids. The virus can cause fever, rash, problems with blood clotting, bleeding and organ failure, and may be fatal in up to 88% of cases. There are currently no available vaccines or treatments for Marburg virus disease.

The virus is rare but recent outbreaks have occurred in multiple countries in sub-Saharan Africa, and an estimated 105 million people may be at risk. The World Health Organisation has listed Marburg virus as a priority disease for research because of its potential to cause an epidemic and the lack of available treatments.

What is ChAdOx1 Marburg?

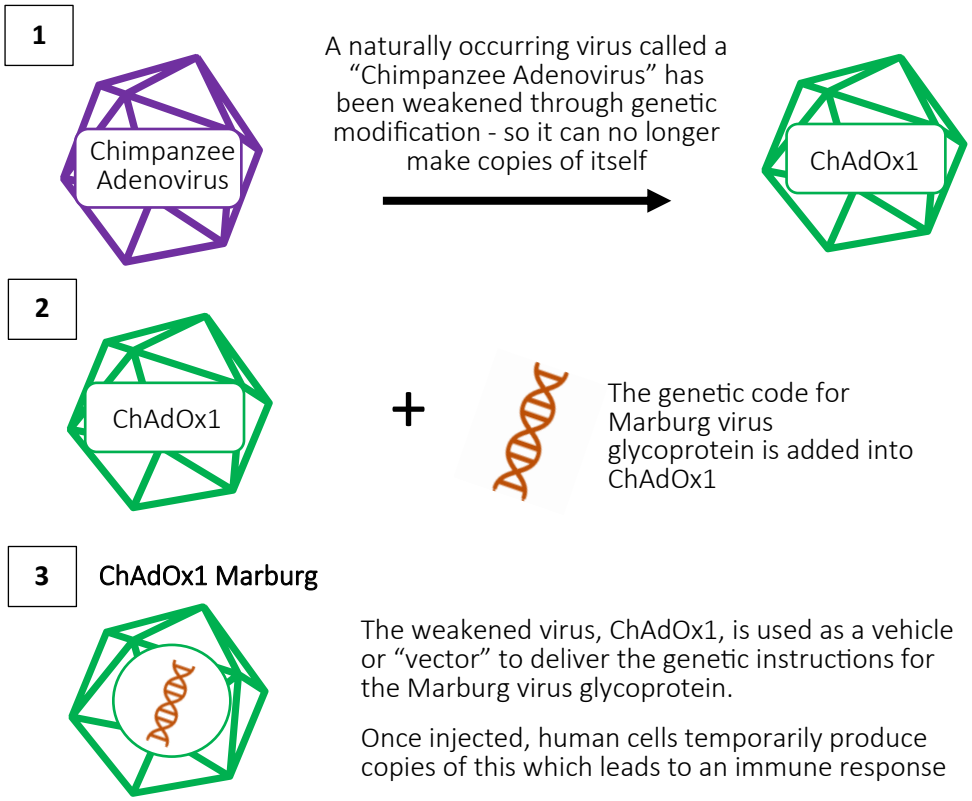
ChAdOx1 Marburg is a new vaccine developed by the University of Oxford. It has been developed using the same ChAdOx1 virus technology as the Oxford/AstraZeneca Covid-19 vaccine, and consists of a weakened version of a virus called a chimpanzee adenovirus. Chimpanzee adenoviruses are naturally occurring viruses that are completely unrelated to the Marburg virus. The natural, unmodified versions of chimpanzee adenoviruses can cause mild cold/flu-like symptoms in chimpanzees.

We have developed a highly weakened version of a chimpanzee adenovirus through genetic engineering. This modified version of the virus is completely unable to reproduce inside the human body. This means it cannot copy itself in humans and it cannot cause infections or be spread from person to person. We call this modified virus 'ChAdOx1' which stands for 'Chimpanzee Adenovirus Oxford 1'.

We then took this weakened virus and inserted a single gene from the Marburg virus. This gene provides the instructions for a component present on the surface of the Marburg virus called the glycoprotein. This is a molecule made of protein and sugar, and cannot cause Marburg virus infection by itself. It is hoped that people who are vaccinated with ChAdOx1 Marburg produce an immune response to this glycoprotein.

The genetic code for Marburg virus glycoprotein is the only component of Marburg virus in the vaccine. Marburg virus itself is not used to manufacture ChAdOx1 Marburg so there is no chance of catching it from the vaccine.

As part of its manufacture, ChAdOx1 is grown in a laboratory using modified cells that were originally derived from a sample of human embryo tissue. These cells are called HEK 293 (human embryonic kidney 293) cells. More information on the use of human-derived cell lines in the manufacture of vaccine is available at https://vk.ovg.ox.ac.uk/vk/vaccine-ingredients#Human%20cell%20strains.



What dose of vaccine is used in this study?

The vaccine is given as an injection in the arm, just like a routine vaccination. The dose we will give is $5x10^{10}$ viral particles per vaccination. This dose has been chosen based on experience with similar vaccines, and is equivalent to the approved dose used for the Oxford/AstraZeneca Covid-19 vaccine. This dose is expected to give a satisfactory immune response without causing significant unwanted side effects.

Previous experience with other ChAdOx1-based vaccines

Although ChAdOx1 Marburg is still in early development and has not yet been tested in humans, there is now a lot of experience with other ChAdOx1-based vaccines in humans.

The Oxford/AstraZeneca COVID-19 vaccine is made using the same ChAdOx1 virus technology that is used for ChAdOx1 Marburg. This has been shown to be safe for the vast majority of individuals and is highly effective at protecting against severe Covid-19. However, following administration of the vaccine to millions of people, a very rare but serious side-effect of blood clots in combination with low platelets has now been associated with the vaccine. It is currently unknown why this vaccine appears to lead to this clotting disorder in a very small number of people. Further details of this are on page 18.

Our research institute has also carried out studies of ChAdOx1 based vaccines against many other diseases such as flu, malaria, meningitis B, tuberculosis, HIV and Zika virus. Over 500 individuals have received these other ChAdOx1 vaccines (not including the Oxford/AstraZeneca COVID-19 vaccine). These vaccines were well tolerated and there have been no safety concerns across these studies. They were also able to stimulate a strong immune response against the viruses, bacteria or parasites being targeted.

What is the purpose of this study?

This is the first time the ChAdOx1 Marburg vaccine has been tested in humans. The purpose of the study is to assess the safety of the vaccine, as well as the immune response that develops in response to it.

We would also like to find out whether previously having received a ChAdOx-based vaccine (such as the Oxford/AstraZeneca Covid-19 vaccine) affects the immune response to ChAdOx1 Marburg.

We do not know if the vaccine is protective against Marburg virus, and you should not assume you are protected if you receive the vaccine.

Who is sponsoring, organising and funding the research?

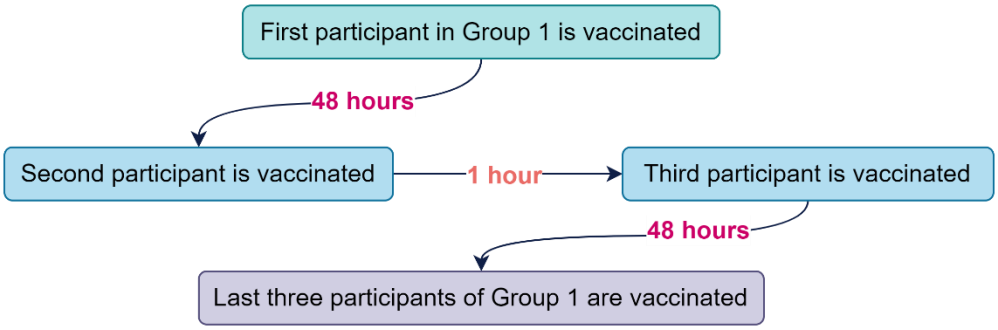
The study is organised and sponsored by the University of Oxford. The study is funded by Innovate UK, the UK's national innovation agency.

What will happen in the study?

We plan to recruit 66 people aged between 18 and 55 years to participate in the study. Participants who initially express interest will complete an online questionnaire to check for key eligibility criteria, and may also receive a phone call from the study team. If participants are confirmed as eligible, they will be invited for an in-person screening appointment by study staff (see page 15 for more details on the screening appointment). Fully eligible participants will then be invited for their first vaccination appointment, and allocated to a study group.

Group 1: The first 6 people to be enrolled in the study will be given two doses of the ChAdOx1 Marburg vaccine 12 weeks apart. As these participants will be the first to receive the vaccine, they will have more safety follow-up visits than participants in Group 2. Vaccinations in Group 1 will be staggered, with safety checks between participants. We will first vaccinate a single participant. There will be a gap of 48 hours and then the next two participants will be vaccinated (at least an hour apart) if there are no concerns about how the first participant responded to the vaccine. There will then be another 48-hour gap before the last three participants of Group 1 can be vaccinated (if there are no safety concerns regarding the first 3 vaccinations).

This staggered vaccination approach is routine for all our trials involving vaccines that are being used for the first time in humans.

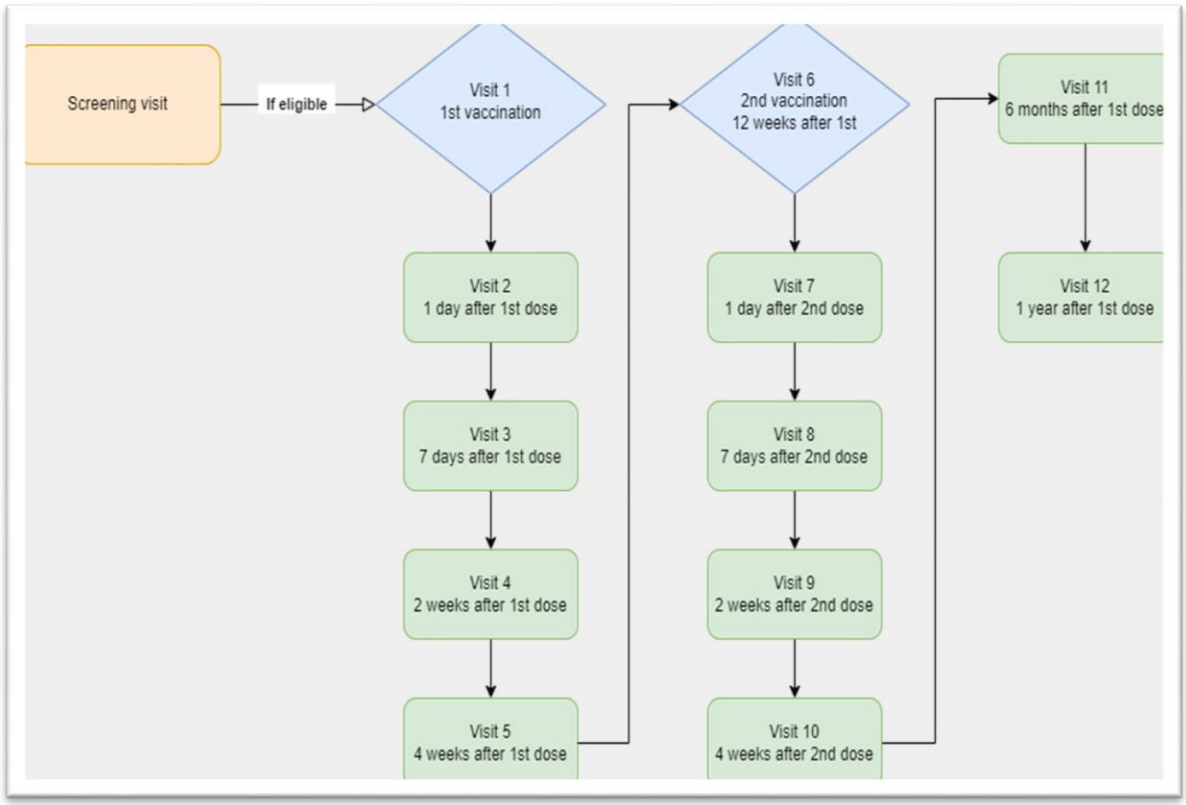


Group 2: This group of 40 people will also receive two doses of ChAdOx1 Marburg, and will receive their first vaccination only after everyone in Group 1 has received their first dose. Group 2 will be divided into two sub-groups, depending on whether or not participants have previously received a ChAdOx-based vaccine (such as the Oxford/AstraZeneca Covid-19 vaccine).

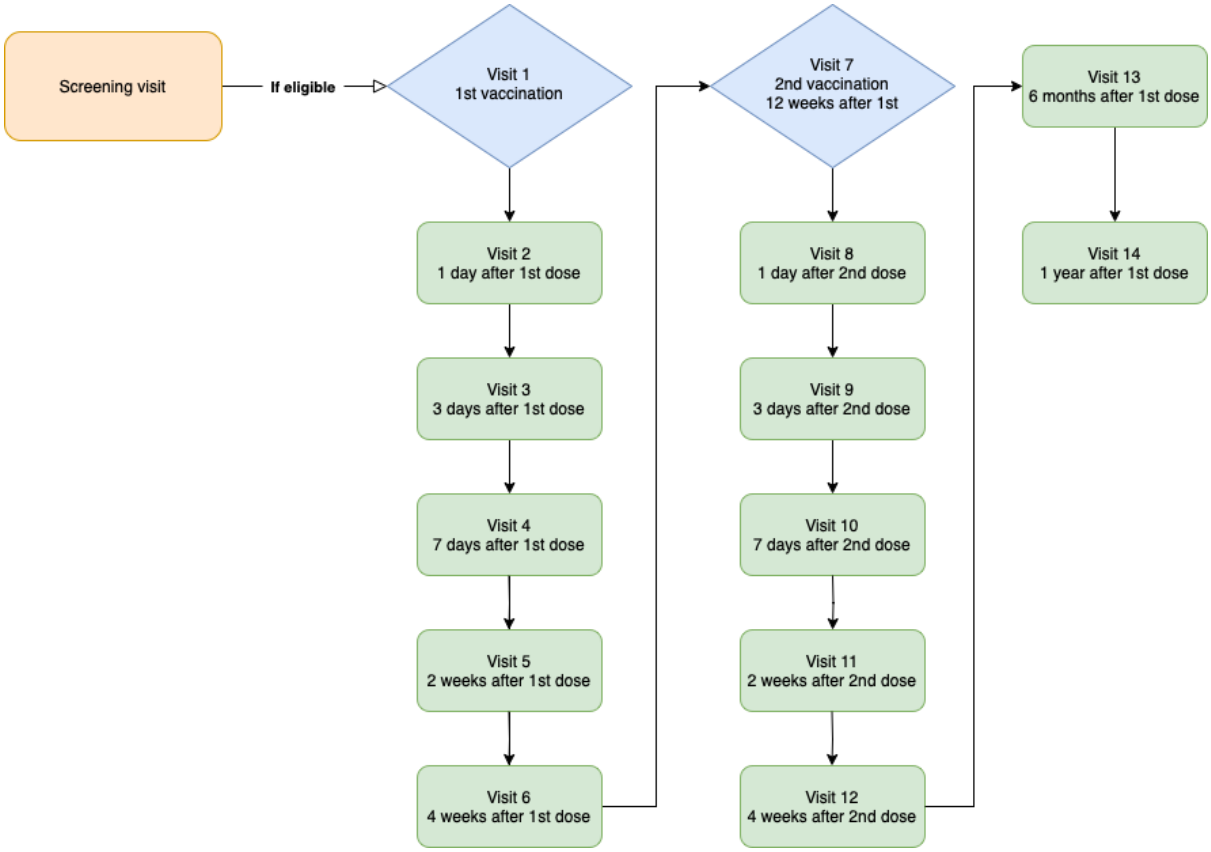
Group 3: This group of 20 participants will receive a single dose of ChAdOx1 Marburg. This group will also be divided into two sub-groups, depending on whether or not participants have previously received a ChAdOx-based vaccine (such as the Oxford/AstraZeneca Covid-19 vaccine).

All participants in the study will be followed up for one year, and the study visit timeline is shown below. Follow-up visits are important to ensure your safety, and they will involve checking medical history and performing blood tests (more details on page 16). You will also be asked to complete an online electronic symptom diary for 28 days following each dose of vaccine. Again, completion of the electronic diary is very important in order to ensure your safety.

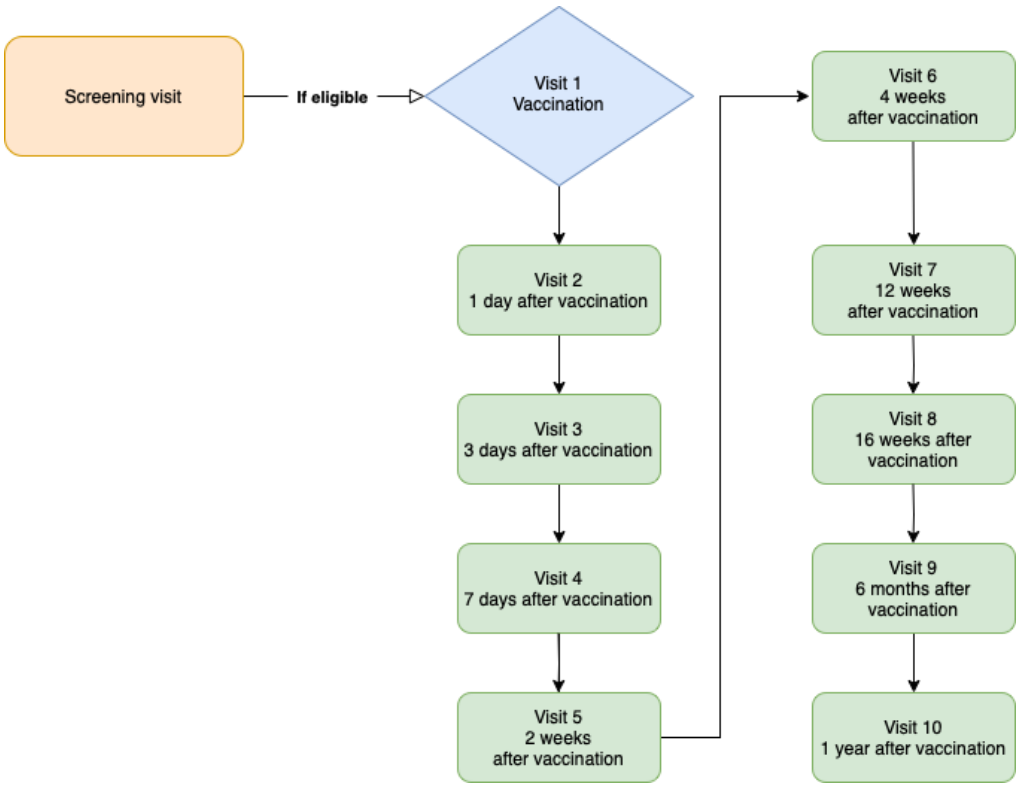
Study visits for Group 1



Study visits for Group 2


Screening visit
If eligible
Visit 1
1st vaccination
Visit 2
1 day after 1st dose
Visit 3
3 days after 1st dose
Visit 4
7 days after 1st dose
Visit 5
2 weeks after 1st dose
Visit 6
4 weeks after 1st dose
Visit 7
2nd vaccination
12 weeks after 1st
Visit 8
1 day after 2nd dose
Visit 9
3 days after 2nd dose
Visit 10
7 days after 2nd dose
Visit 11
2 weeks after 2nd dose
Visit 12
4 weeks after 2nd dose
Visit 13
6 months after 1st dose
Visit 14
1 year after 1st dose

Study visits for Group 3



Details of study visits

Type of visit	**What to expect**
Online Screening Questionnaire	An online questionnaire, to collect information such as name and contact details, medical information to check eligibility and previous vaccines. Includes an electronic consent form. *Takes approx. 10-20 mins*
Screening visit	Discuss the study and sign a consent form, review your medical history, physical examination, vital signs (temperature, pulse, blood pressure), blood tests and urine pregnancy test (if appropriate). *Takes approx. 60 – 90 mins*
Vaccination Visit	Vital signs, brief medical history and/or physical examination, blood tests and urine pregnancy test (if appropriate), receive vaccine, remain in clinic for at least 30 minutes post vaccine for observation and go through eDiary set-up. *Takes approx. 90 mins*
Follow up	Follow-up medical questions, vital signs, eDiary review and blood tests. *Takes approx. 30 mins*

Who can take part in the study?

You must:

Be aged **18 to 55 years**
Be in **good health**
Be able to **attend all scheduled visits** and **comply with all study procedures**, including having internet access for the completion of electronic symptom diaries
Be willing and able to give **informed written consent** for participation in the study
Be willing to allow us to check your **past medical and vaccination history** and **view your medical records**, and be willing for us to notify your GP of your participation in the study
Be willing to provide your **national insurance number or passport number** to be registered on The Over-volunteering Prevention Service
Agree to **not give a blood donation** during the course of the study
For people who are able to become pregnant only: Use **effective contraception** for the **duration of the study** (see page 16 for details) *and* have a negative pregnancy test at the screening and vaccination visits

You must not have:

Current and Past Medical Problems
A **serious or severe long-term illness**, e.g. a condition which requires hospital admissions or affects your daily life
A previous history of suspected or confirmed **Marburg virus infection**
Received a **blood transfusion** or **immunoglobulin treatment** within 3 months of the first vaccination
Any known condition **affecting your immune system**, e.g. HIV infection, immunodeficiency syndrome
A history of **allergy or anaphylaxis** to vaccines
A history of **angioedema**
A history of **cancer**
A **serious ongoing mental health condition** if this may affect your participation in the study
A history of **bleeding disorders, blood clotting disorders or major blood clot** (e.g. clots in the brain, legs or lungs)

A history of **capillary leak syndrome**
A history of **Guillain-Barre syndrome or transverse myelitis**
Current **alcohol abuse**
A history of **injecting recreational drugs** within 5 years of the study start
A history of **hepatitis B or hepatitis C infection**
Other Vaccines: You must not
Have received **any ChAdOx vaccine** in the 6 months before the first study vaccination, including the Oxford/AstraZeneca Covid-19 vaccine. Receive **flu or COVID-19 vaccines within 14 days** (before or after) of each study vaccine. This extends to **30 days for any other vaccine**.
Other Clinical Studies: You must not
Participate in **another clinical study** that involves receiving a drug or vaccine in the **12 weeks before the first study vaccination** and for the duration of the study
(In people who are able to become pregnant only) You must not
Become **pregnant or breastfeeding** during the study, or plan to become pregnant

If you are not sure whether you can join the study, you can contact the study team to discuss further (details at the end of this information sheet). The criteria above will also be discussed with you in detail at the screening visit by study staff to make sure that you are eligible to take part.

Do I have to take part?

No, it is completely up to you. Your decision will not result in any penalty or changes to your standard medical care. If you do decide to take part, you will be given this information sheet to keep (or be sent it electronically) and will be asked to sign a consent form.

You may also change your mind about participating at any time and withdraw from the study. This would not result in any penalty or change to your medical care. We would use the samples and data we have collected from you in our analysis of the study up until the point you informed us that you wanted to withdraw, unless you specifically request that the samples be destroyed before being analysed.

In exceptional circumstances (for example, if you were to become very unwell during the study), your participation in the study may be stopped early by the study team or the sponsor of the study. If this occurs, we may ask you to still attend safety follow-up visits with your consent.

What will happen if I decide to take part?

Online pre-screening questionnaire

If you decide that you would like to take part, we will ask you to complete a set of online questions that cover the key criteria for participation in the study; your contact details, how you heard about the study, medical history and vaccines you have had before. You will be asked to complete an online consent form for this. If you are deemed ineligible based on any of the replies you give to the major inclusions and exclusions in the pre-screening questionnaire, the questionnaire will stop at this point and consent for medical records, personal identifiable data and medical history will not be collected. If eligible based on the pre-screening questionnaire replies, your medical records (for which your NHS number will be required) may be used to confirm your eligibility to take part in this study. If you are not eligible, based on your medical records, you will be informed by the study team.

If you are unable to complete the online questionnaire, you can communicate directly with the study team by phone or email.

If you seem eligible to take part, the study team will invite you to attend a screening visit in person.

Screening visit

At the screening visit you will meet the study staff who will go through this information sheet and answer any questions you have about the study. You may also be asked to take a quiz to check your understanding of what the study involves. If you decide to take part, and the study team are happy that you have understood the study information, you will be asked to sign the study consent form.

At this appointment, we will also request your National Insurance or passport number. This is to register you on The Over-volunteering Prevention Service (see page 24 for more information). Finally, we will ask for your bank account details (account number and sort code), so we can reimburse you.

This will be followed by a physical examination which will involve the doctor listening to your heart and lungs with a stethoscope and examining your abdomen. Your vital signs (blood pressure, pulse, temperature), height and weight will also be measured, and blood samples will be taken. If applicable, a urine sample may also be taken to perform a pregnancy test.

This visit will take around 90 minutes, and may take place up to 3 months before your first vaccination day. This and all other study visits will take place at the Oxford Vaccine Group, Centre for Clinical Vaccinology & Tropical Medicine (CCVTM), Churchill Hospital, Oxford, OX3 7LE.

Vaccination visits

If you are eligible to be in the study after screening, we will arrange for you to attend your first vaccination visit. You will be asked a few questions to check there have been no new problems since your screening visit. Your blood pressure, pulse and temperature (vital signs) will be checked, and a blood test taken. If appropriate, you will have a urinary pregnancy test before vaccination.

The vaccine will then be given as an injection into your (non-dominant, preferably) upper arm. We will temporarily cover the vaccine site with a dressing. We will need to keep an eye on you in a waiting area for at least 30 minutes after the vaccine. After this period the injection site will be inspected.

If in Group 1 or 2, the second vaccination visit (after approximately 12 weeks) will follow the same steps as above. Overall, the vaccination visits will each take about 90 minutes.

Electronic symptom diary (eDiary, *to be completed at home*)

During the vaccination visits you will be given access to an online symptom eDiary via an email link sent to your email address. We will ask you to record any symptoms or illnesses you experience in the 28 days following each vaccine, even if you think these are unrelated. For the first seven days we will also ask you to measure and record your temperature each evening using an oral thermometer that we will provide. We will also give you a tape measure or ruler so that if you experience any redness around the injection site you have something to measure this with (see "Vaccine site ("local") reactions" on page 17).

Follow-up visits

After you have received the vaccination, you will attend the clinic for several short follow-up visits, as indicated in the study visit timelines on pages 10-12, up to one year after receiving the first vaccine. The visits are to check if you are experiencing any problems after the vaccine, check your eDiary and take a blood sample. These visits should take around 30 minutes each.

During the course of the study, you may also be asked to attend for an extra visit, for example, if a blood test needs to be repeated.

Considerations before taking part in this study

Other vaccinations or medications during the study

If during the study you require any vaccinations for health, travel, or occupational reasons, you should inform the study team beforehand. We ask you **not** to receive **any vaccines within 30 days** (before and after) of receiving each study vaccine. The **EXCEPTIONS for this are flu and some COVID-19 vaccines**. You may receive these as long as they are given **at least 14 days** before or after each study vaccine. **However, if you have received the Oxford-AstraZeneca COVID-19 vaccine within 6 months of the study start we will not be able to include you in the study. Receipt of the Oxford-AstraZeneca (or equivalent) COVID-19 vaccine at any point during the study would prevent you from receiving any further doses of the ChAdOx1 Marburg vaccine.**

If you begin taking any new medications (prescribed or over the counter) during the study, please make a note of these and inform the study team.

Private insurance

If you have private medical insurance or travel insurance, participation in a study will often not affect your cover for any conditions unrelated to the study, but to be certain you must tell your insurance provider beforehand if you are planning to participate.

Contraception

There are no data on the use of this vaccine in pregnancy. We therefore require participants who could become pregnant to use contraception for at least **one month before** they receive their first vaccination, and for the **entire duration of the study** (exceptions to this are below).

Participants where any of the following apply will not be required to use contraception:

- Post-menopausal

- Surgical sterilisation
- Complete abstinence from sexual intercourse which could result in pregnancy (please note this must be in line with participants' normal lifestyles, and declarations of abstinence during the study will not be sufficient)

Acceptable effective contraception methods include:

- Oral, injected or implanted hormonal contraceptives ("the pill", "the depot")
- Intrauterine device (IUD) or intrauterine system (IUS) ("the coil")
- Condoms or occlusive cap with spermicide
- Sole sexual partner has had a vasectomy

Male participants in the study are not required to use barrier contraception methods for the purposes of contraception. There is no evidence that the vaccine can be shed into semen.

Pregnancy

If you were to become pregnant during the study, you should tell us immediately so that we can review certain study procedures such as blood sampling. With your consent we would continue to follow you up for safety reasons, but you would not be given any further doses of ChAdOx1 Marburg. We would also follow up your baby for 3 months after delivery.

What should I avoid during the study?

Blood donation

Under current UK regulations, participants must refrain from blood donation during their involvement in the study. However, you will be able to restart blood donation once your last study visit has been completed.

Taking part in other clinical studies

You should not take part in other clinical studies where drugs or vaccines are administered whilst participating in this study. You should also not take part in studies that involve repeated blood sampling at the same time as this study.

Are there any risks in taking part?

We can predict, from past experience with other ChAdOx1 vaccines, what the symptoms should be like with this new vaccine. However, it is important to remember this vaccine is in a very early stage of development and has not been tested in humans before. For this reason, there is a chance you could experience an unexpectedly severe side effect or a new side effect that has not been seen before. Potential risks are summarised below:

Vaccine site ("local") reactions

As with any vaccine, you may experience some discomfort at the injection site. Usually this is mild but sometimes individuals experience more significant pain which might interfere with their usual activities. Post-vaccination arm pain usually resolves within a few days although may occasionally persist up to a week or even longer.

Other less common but possible symptoms around the injection site might include redness, swelling, itchiness or a feeling of warmth.

General reactions

During the first 24-48 hours after vaccination you may experience flu-like symptoms such as muscle aches, joint aches, feverishness, chills, headache, nausea, tiredness and feeling generally unwell. We would expect these symptoms to resolve within a few days.

How common were these reactions in other clinical studies using ChAdOx1-based vaccines?

Vaccine reaction symptoms were measured in the large Oxford/AstraZeneca Covid-19 vaccine studies involving over 10,000 volunteers. The percentage of volunteers experiencing symptoms after vaccination is shown in the table below. Symptoms were mostly described by volunteers as mild, although a minority described temporary moderate or severe-intensity symptoms. The dose given to those individuals is equivalent to the dose we plan to use in this study.

Percentage of participants reporting side effects in studies of the Oxford/AstraZeneca COVID-19 vaccine	
Vaccine site reactions	**General reactions**
Vaccination site tenderness (68%)	Fatigue (53%)
Vaccination arm pain (58%)	Headaches (53%)
	Feeling generally unwell (44%)
	Muscle aches (44%)
	Feeling feverish (34%)
	Joint pains (27%)
	Nausea (22%)
	Fever 38°C and over (8%)

Individuals tend to have fewer and milder symptoms after their second dose of the Oxford/AstraZeneca Covid-19 vaccine. The other ChAdOx1-based vaccines that have been used in smaller clinical studies had similar rates of side effects when used at the equivalent dose.

Post-vaccination symptoms completely resolved within a few days in the vast majority of people in all previous ChAdOx1-based vaccine studies.

Rare but serious blood clot disorder with similar vaccines

The Oxford/AstraZeneca COVID-19 vaccine has been associated with a very rare but serious blood clot condition that led to death or serious long-term disability in a small number of people who received the vaccine. The condition consists of unusual types of blood clots together with low levels of platelets in the blood, and is known as “thrombosis with thrombocytopenia syndrome”. The most frequent type of clot was a rare brain blood clot known as a “cerebral venous sinus thrombosis”. Unusual blood clots occurring in other organs along with low blood platelets were also reported. The majority of these cases occurred within the first 3 weeks after vaccination.

It is not predictable who might develop this condition, and it has occurred in previously healthy people. According to data published in The Lancet, approximately 1 out of every 100,000 people who receive the Oxford/AstraZeneca COVID-19 vaccine develop this rare reaction. Approximately 1 in 5 patients who develop this condition unfortunately die.

A condition called "immune thrombocytopenia", in which very low levels of blood platelets can be associated with bleeding, has also been reported very rarely. This has usually occurred in the first four weeks following vaccination with the Oxford/AstraZeneca Covid-19 vaccine.

We do not know whether these rare reactions may also occur with other ChAdOx1 vaccines, such as the ChAdOx1 Marburg vaccine used in this study. We therefore advise you to seek urgent medical advice if you experience the following, especially in the first 28 days after each of your study vaccines:

- Sudden severe headache that does not improve with usual painkillers or is getting worse
- An unusual headache which seems worse when lying down or bending over, or may be accompanied by blurred vision, nausea and vomiting, difficulty with speech, weakness, drowsiness or seizures
- New and unexplained pinprick bruising or bleeding
- Shortness of breath, chest pain, leg swelling or persistent abdominal pain

You will be provided with a medic alert card with a 24-hour study mobile number. If you experience any of the above events or are in any way concerned, you can use this to contact the study doctors at any time. We advise you to carry the medic alert card with you throughout the study and you may use this to show medical staff that you are taking part in this study.

Other serious vaccine reactions

Very rare cases of a condition called "capillary leak syndrome" have been reported following vaccination with the Oxford/AstraZeneca COVID-19 vaccine. Some (but not all) affected patients had previously had a diagnosis of capillary leak syndrome prior to vaccination. Capillary leak syndrome is a serious, potentially fatal condition causing fluid leakage from small blood vessels (capillaries) resulting in rapid swelling of the arms and legs, sudden weight gain and feeling faint (due to low blood pressure). **You must seek immediate medical attention if you develop these symptoms following vaccination.**

Nervous system reactions are also extremely rare but have been reported with vaccinations in the past. Guillain-Barré syndrome and transverse myelitis are very rare conditions in which people can develop severe weakness. Cases of Guillain-Barré syndrome and transverse myelitis have been reported after COVID-19 vaccinations and the UK MHRA have updated their information to list Guillain-Barré syndrome as a possible very rare side effect of the Oxford/AstraZeneca COVID-19 vaccine.

A severe allergic reaction to a vaccine (anaphylaxis) is rare but can occur with any vaccine and can be fatal. In the unlikely event of this occurring, medications for treating allergic reactions are kept in the clinic room and the study team are appropriately trained in the management of anaphylaxis.

Unknown or unexpected side effects

With any new medicine or vaccine that is in early development there is always a possibility of a previously undescribed or unexpected side effect occurring. This could include something severe. If

you experience anything that is unexpected (i.e., not mentioned in this information sheet), you should phone the 24-hour study contact number and speak to a study doctor.

Potential interaction with adenovirus-based vaccines (such as the Oxford/AstraZeneca Covid-19 and Janssen Covid-19 vaccines)

When people are vaccinated with ChAdOx1 Marburg they should develop the intended immune response against the Marburg virus. However, they may also develop an immune response against ChAdOx1 itself. Some scientists believe that having a strong immune response against ChAdOx1 might interfere with **future** doses of ChAdOx1-based vaccines (e.g. the Oxford AstraZeneca Covid-19 vaccine) and prevent them working as well. The same potential interference issue might also apply to other related (adenoviral) vaccines (e.g. the Janssen COVID-19 vaccine), although these are not currently in widespread use in the UK.

This interference with future ChAdOx1-based vaccines is theoretical and we do not have firm evidence either way. If you participate in this study, you should follow government or your doctor's advice if you are offered ChAdOx1-based vaccines in the future.

It is important to note that receiving the ChAdOx1 Marburg vaccine will not affect your protection against Covid-19 provided by **past** Covid-19 vaccinations.

Other potential risks from participating in the study

Blood sampling may cause slight pain and sometimes bruising. Occasionally, people feel light-headed, nauseous or faint. The amount of blood taken at each visit is fairly small and should be well tolerated by healthy adults. Depending on the study group, the maximum total amount of blood taken for the study is between 514.5ml and 667.5ml. Maximum blood volume per visit is 75.5ml. For comparison, a single donation to the NHS blood bank would be approximately 470ml.

As we carry out several medical tests throughout the study, it is possible that we pick up previously unknown health issues (e.g. high blood pressure, abnormal blood results). If abnormal results or previously undiagnosed conditions are found during the study, these would be discussed with you and, if you agreed, your GP would also be informed of these results. Sometimes incidental medical findings might require your GP to carry out further investigations such as blood tests, scans or referral to specialists.

During the screening process, we will test your blood for hepatitis B and hepatitis C. In the UK, healthcare professionals are legally obliged to report any new suspected cases of hepatitis B and hepatitis C to the UK Health Security Agency (UKHSA). If you are found to have hepatitis B or C, we will be required to send a report to the UKHSA, including your personal contact information. It's important to note that you cannot opt out of this due to UK reporting requirements.

Are there any benefits from taking part?

If you decide to participate in the study, you will be helping in the development of a much-needed vaccine against a deadly disease. However, you will not gain any direct personal health benefit from the study. You should not assume you have gained any protection from Marburg virus infection if you receive the ChAdOx1 Marburg vaccine.

Will I be reimbursed for taking part in the study?

Study participants would be reimbursed for their time, travel and the inconvenience of taking part in the study. The maximum reimbursement for any volunteer who completes the whole study is up to £1,290 for Group 1, up to £1,470 for Group 2 and up to £1,060 for Group 3. All participants will be reimbursed based on the following figures:

- Travel expenses: £30 per visit
- Inconvenience of blood tests/sample collection: £20 per blood donation
- Time required for visits: £60 per screening or vaccination visit, £40 per follow-up visit
- Diary card completion: £30 per fully completed diary

You will be compensated £110 for attending the screening visit and vaccination visits and £90 for each of the trial follow-up visits. You may also receive reimbursement for any unscheduled visits you attend. You would be reimbursed £90 per unscheduled visit.

The sum reimbursed is on a pro-rata basis, so, if for example, you choose to withdraw halfway through the study, or do not complete all study procedures, we would calculate your reimbursement based on the visits you have attended and samples that have been obtained. The reimbursement is not taxed and should not affect any benefits you receive.

Reimbursements to participants in Group 1 will be made following the first vaccination visit, and after visits 4, 7 and 12. Reimbursements to participants in Group 2 will be made following the first vaccination visit, and after visits 6, 10 and 14. Reimbursements to participants in Group 3 will be made following the first vaccination visit, and after visits 4, 7 and 10.

Payments are made directly by bank transfer in instalments during the study. For this reason, we require participants to provide their bank details at screening. Bank details are kept confidential. Personal information such as your name, bank details and national insurance number may be shared with the University finance team to process or verify your reimbursement payments. Financial auditors may also audit the records where this information is held. All confidential data will be stored according to the UK General Data Protection Regulation (see page 23).

What if new information becomes available?

Sometimes during a study, new relevant information becomes available. If this happens, we will tell you about it and discuss whether you want to, or should, continue in the study. If you decide to continue to take part, you will be asked to sign an updated consent form. On receiving new information, we may consider it to be in your best interests to withdraw you from the study.

If any new information or safety concerns arise during the study in relation to ChAdOx1 Marburg or other ChAdOx vaccines, this will be reviewed, and you would be kept fully updated.

What will happen to any samples I give during the study?

Your samples will be assigned a code and will only be identifiable by this code. Any samples given to researchers outside of the study clinic will not have information that identifies you. The blood and urine samples collected during this study will be analysed in the Oxford Vaccine Group, University of Oxford research laboratories and local clinical laboratories. With the exception of clinical safety blood

samples, which are sent to local clinical laboratories and follow local sample labelling requirements, samples sent to laboratories for processing will be identified by trial number and participant number only. We may also send de-identified samples to other researchers working with us on this research project. This may include researchers in other countries outside of the UK. All samples you provide will be tested in a de-identified form. However, as your DNA is unique, samples can never be completely anonymous.

If you choose to take part in this study, we will be asking for your separate permission to store your samples (including cells and DNA), in a collection of samples called the Oxford Vaccine Centre Biobank. Details of this will be provided in a separate booklet after you are enrolled into this study, and you are free to say no to the Biobank and continue to take part in this study if you wish. If you consent to your samples being stored as part of the Biobank, a copy of your informed consent form (which contains your personal information) will also be stored. If you do not wish for your samples to be stored in the Biobank, any unused blood samples will be destroyed 12 months after the study has been completed.

The following tests will be performed on your samples:

- Blood tests for blood cell counts, liver and kidney function and markers of inflammation.
- Tests for Hepatitis B, Hepatitis C and HIV (at the screening visit).
- HLA typing, a genetic test of components of the body's immune system.
- Tests of immune responses following vaccination looking at your antibodies and immune cells.
- If initial blood results are abnormal, additional tests may be conducted to confirm eligibility for the study.
- Urine pregnancy testing (if applicable). Pregnancy testing may alternatively be performed on blood samples.
- If you opt in, blood samples taken in this study may be used for research involving the creation of specific antibodies called 'monoclonal antibodies'. These help us better understand how the immune system responds to the vaccine. It is possible that these antibodies could be developed into a commercial product in the future. You would not gain any direct personal financial benefit from this.
- If you opt in, bloods samples in this study will be stored in the Oxford Vaccine Centre Biobank and may be used in future vaccine research studies.

Will any genetic tests be done?

We will do genetic tests on your blood samples to look at the patterns of genes that regulate your own individual immune response. These are called Human Leukocyte Antigen (HLA) genes. This will help us to work out which aspects of the immune response to vaccines are due to genetic differences between individuals. We may also try to identify and study the genes that appear to be important in your immune response to the vaccination. You will not receive the results of any genetic tests performed.

What if something goes wrong?

The investigators recognise the important contribution that volunteers make to medical research and make every effort to ensure your safety and well-being. The University of Oxford, as the 'research sponsor', has arrangements in place in the unlikely event that you suffer any harm as a direct consequence of your participation in this study.

In the event of harm being suffered, while the sponsor will cooperate with any claim, you may wish to seek independent legal advice to ensure that you are properly represented in pursuing any complaint. The study doctor may advise you of further action and refer you to a doctor within the NHS for treatment, if necessary. If you are referred to the NHS during the study then NHS indemnity operates in respect of the clinical treatment which may be provided.

We will provide compensation for any injury caused by taking part in this study. We will pay compensation where the injury probably resulted from:

- A drug being tested or administered as part of the study protocol
- Any test or procedure you received as part of the study

Any payment would be without legal commitment (please ask if you wish for more information on this). We would not be bound by these guidelines to pay compensation where the injury resulted from a drug or procedure outside the study protocol or where the protocol wasn't followed.

Complaints statement

If you wish to complain about any aspect of the way in which you have been approached or treated during this study, you should contact the research investigators and the trial Chief Investigator at info@ovg.ox.ac.uk or 01865611400. Alternatively, you may contact the sponsor organisation of this study (University of Oxford) at the Research Governance, Ethics and Assurance (RGEA) team office on 01865 616480 or email RGEA.complaints@admin.ox.ac.uk.

Would my taking part in this study be kept confidential?

All information that is collected about you during the research will be coded with a study number and kept strictly confidential. Any information about you that leaves the clinic would have your name and address removed so that you could not be recognised, except for letters sent to your own GP. In order to enrol into this study, you are required to consent for us to contact your GP.

We will write to your GP to inform them about your enrolment and study completion status, so they can update your medical records accordingly. Your GP will also be asked to share information about your medical history and give access to any other medical records as required to ensure there are no medical reasons that would prevent you from taking part. We would only notify your GP of the results of any medical tests with your permission.

Responsible members of the University of Oxford, the relevant NHS Trusts involved in the research and the regulatory agency responsible for clinical studies in the UK, the MHRA, may also be given access to data for monitoring and/or audit of the study to ensure that the research is complying with applicable regulations. No-one else will be told that you are involved in the study.

What will happen to my data?

Data protection regulation requires that we state the legal basis for processing information about you. In the case of research, this is 'a task in the public interest.' The University of Oxford is the 'data controller' and is responsible for looking after your information and using it properly. We will be using information from you and your medical records in order to undertake this study.

We will use the minimum amount of personally-identifiable information possible. Data will be collected and held by Oxford Vaccine Group. It will be accessible to staff at Oxford Vaccine Group, responsible staff from the University of Oxford who may monitor/audit the data collection process, and inspectors from the regulatory agency responsible for clinical studies in the UK (the MHRA). The University of Oxford Data management and IT Team will be able to view your email address, which is necessary for the eDiary to function. The database servers are held by the sponsor. We will keep identifiable information about you, such as contact details, for a minimum of 5 years after the study has finished, subject to changes in regulations. The need to store this information for longer in relation to licensing of the vaccine will be subject to ongoing review. De-identified research data will be stored indefinitely, not due to regulatory requirements but for the scientific benefit. If you only complete online screening (i.e. before you give informed consent) your data will only be kept till the end of the study.

At the completion of the study, unless you consent otherwise (e.g. if you request to be informed of other studies), your personal details will not be used to contact you other than in exceptional circumstances concerning your safety. Either your national insurance or passport number for "TOPS Database Registration" (see below) and payment processing will be taken at the screening visit. We will securely retain copies until the end of the study. Your bank details will be stored for a minimum of 7 years in line with site financial policy.

For those study participants who were referred via Be Part of Research: Oxford Vaccine Group will provide information to Be Part of Research to confirm who has signed up to the study. This is for the purpose of ensuring you will not be contacted about this study again, or other research that you may have become ineligible to take part in.

Data protection regulation provides you with control over your personal data and how it is used. When you agree to your information being used in research, however, some of those rights may be limited in order for the research to be reliable and accurate. Further information about your rights with respect to your personal data is available at https://compliance.web.ox.ac.uk/individual-rights.

If you withdraw from the study, we will keep the de-identified information about you that we have already obtained. To safeguard your rights, we will use the minimum personally identifiable information possible.

TOPS database registration

Volunteers participating in this study must not be enrolled in another study that involves receiving investigational medications or vaccines at the same time. In order to check this, you will be asked to provide your passport number (required for all non-UK citizens) or national insurance number. Details will be entered on to a national database, called 'The Over-Volunteering Prevention System' (TOPS), which helps prevent volunteers from taking part in too many clinical studies. These details will also be stored at the study site for the duration of the study. Only staff at Oxford Vaccine Group and other medicines research units can access the TOPS database. If you receive a dose of the study vaccine, this data will be retained in TOPS. If you do not receive a dose, we will remove your registration from TOPS.

What will happen to the results of the study?

The results of this research study may be presented at scientific meetings or conferences and published in a scientific medical journal. This can take up to 2 years after the study is completed. Your individual results would not be identifiable nor would you be identified in any report or publication. We will provide a summary of the results and a link to the publication.

The de-identified research data from this study will be shared with the collaborating partners who are organising and funding this research work. Data from this study may be used to file patents or licence vaccines in the future or make profits in other ways. You would not be paid for any part of this. Data from this study may be used as part of a student post-graduate degree, for example a MD or PhD.

Who has reviewed the study?

This research has been looked at by an independent group of people, called a Research Ethics Committee, to protect participants' interests. This study has been reviewed and given favourable opinion by the London - Brent Research Ethics Committee. The Oxford Vaccine Centre Patient Public Involvement group have reviewed the main participant-facing documents associated with this study (Participant Information sheet, Consent form and advertising materials).

The Medicines and Healthcare products Regulatory Agency (MHRA), which regulates the use of all medicines in the UK, has reviewed the study design and has granted permission to use this unlicensed vaccine in this clinical study.

Further information and contact details

We hope this information sheet has given you enough information to make a decision on whether to volunteer for this study. If you would like further information about participating in research, please visit the following website: http://www.nhs.uk/conditions/Clinical-trials/Pages/Introduction.aspx.

For independent advice about participating in this study, you may wish to contact your GP.

If you are interested in taking part in this study, then please complete the online pre-screening questionnaire at: http://tiny.cc/MagicOVG.

If you have further questions about the study that you would like to discuss with our team, please contact us at:

Email: info@ovg.ox.ac.uk

Tel: 01865 611400

Oxford Vaccine Group, University of Oxford

Centre for Clinical Vaccinology and Tropical Medicine

Churchill Hospital, Headington, Oxford, OX3 7LE

Thank you for your interest in taking part in this study.