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To determine if the Shingrix vaccine is immunogenic for people living with HIV who are aged 50 and over or have perinatally acquired HIV infection and are aged 18 or over

Submission date
19/09/2023

Recruitment status
No longer recruiting

Registration date
16/10/2023

Overall study status
Completed

Last Edited
16/12/2025

Condition category
Infections and Infestations

[X] Prospectively registered
[X] Protocol
[_] Statistical analysis plan
[_] Results
[_] Individual participant data
[X] Record updated in last year

Plain English summary of protocol

Background and study aims
People living with HIV have a higher risk of developing Herpes Zoster infection (otherwise known as Shingles), than other age-matched populations. Being aged over 60 years is a risk factor for the general population, but people living with HIV are not eligible to be vaccinated against Shingles until they are 70 years old. People living with HIV may have less protection from infections and have more associated illnesses or infections than the general population. Studies involving other vaccines have shown that people living with HIV have a less robust response to vaccination than people without HIV.
HZ/Su (SHINGRIX) is the first vaccine of this type developed to protect against shingles and is licensed for use in the USA and the EU, among other regions. The efficacy against and immune responses to Shingles is durable and suggests that the clinical benefit in older adults is sustained for at least 7 years after vaccination. Data in all age groups and in HIV-infected people for the SHINGRIX vaccine is limited. From July 2021, the vaccine has been approved for use in immunocompromised people aged 18 and over and this includes individuals with HIV infection. This trial addresses the question of, does the Shingrix vaccine produce an immune response in people living with HIV, who are either 50 years and over or adults who acquired HIV at birth.

Who can participate?
People living with HIV aged 50 years and over and adults aged 18 years and over who acquired HIV at birth

What does the study involve?
Participants will receive an initial dose of the vaccine followed by a second dose 2 months later. Participants will be on the trial for a total of 48 weeks and have blood samples taken at 3-month intervals to check their immune response to the vaccine. Any participant who has suspected Shingles will have a swab taken for analysis and treated clinically.

What are the possible benefits and risks of participating?
This trial is relevant to people living with HIV as the vaccine is not currently within UK treatment guidelines for these people. This trial will inform the guidelines regarding whether it should be included for these two groups. The possible benefits of participating in this trial are that participants will get a shingles vaccine sooner than they would according to UK guidelines. The information collected in this trial may help inform vaccine guidelines for people living with HIV.
There is a potential for some discomfort and bruising at the blood sample site. Staff are all trained and experienced in venepuncture, so this should be minimal. The quantity of blood being taken is above that of standard of care, but participants will be seated on a reclinable clinic couch and refreshments will be made available, to minimize the likelihood of light-headedness or other side effects as a result of blood taking.
There is a potential for discomfort, redness and/or some swelling at the vaccination site. After vaccination, participants will be monitored for 15 minutes to assess any vaccine reactions or side effects and address them accordingly. Delegated research staff will be trained and experienced in giving vaccinations. Adverse events, including any reactions to vaccination, will be monitored throughout the trial. The participant information sheet contains information about potential side effects of the vaccine and participants will have the opportunity to discuss with the trial investigator both before enrolling and throughout the trial. Any individual who has had an allergic reaction to any vaccine in the past will be excluded from the trial.
The number of research visits are above that of standard of care, however, participants will be reimbursed for their time and travel. The window periods for each visit are long enough to arrange a convenient appointment for the participant, limiting inconvenience and burden. Other than four additional visits to what they would routinely experience over the trial period, there are no additional lifestyle changes required.
In addition to the above, all routine clinic support services will be made available to participants throughout the trial, should they require them.
The survey comprises five brief questions regarding the participant's knowledge of shingles and shingles vaccines. No sensitive questions will be asked.

Where is the study run from?
Guy's and St Thomas' NHS Foundation Trust (UK)

When is the study starting and how long is it expected to run for?
September 2023 to December 2025

Who is funding the study?
GlaxoSmithKline (UK)

Who is the main contact?
Dr Julie Fox, Julie.fox@kcl.ac.uk

Contact information

Type(s)
Scientific

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Additional identifiers

Integrated Research Application System (IRAS)
1004647

Protocol serial number
3636 - SAGE

Study information

Scientific Title
The immunogenicity of Shingrix vaccination in people living with HIV at risk of shingles infection (SAGE)

Acronym
SAGE

Study objectives
Primary objectives:
To determine if the Shingrix vaccine is immunogenic for people living with HIV who are aged 50 years and over OR have perinatally acquired HIV infection and are aged 18 years and over.

Secondary objectives:
1. Detailed characterization of cell-mediated and humoral responses to the candidate vaccine
2. Impact of current CD4, nadir CD4, CD4: CD8 on immunogenicity.

3. Impact of vaccination on HIV reservoirs.
4. To explore BCR and TCR repertoires in response to vaccination.
5. To investigate the sequences of viruses from individuals who develop shingles after vaccination.
6. To assess the safety of the Shingrix vaccine in people living with HIV aged above 50 years and those born with HIV, who are 18 years and over.

Ethics approval required
Old ethics approval format

Ethics approval(s)
Approved 11/12/2023, Wales REC 2 (Health and Care Research Wales, Castlebridge 5, 15-19 Cowbridge Road East, Cardiff, CF11 9AB, United Kingdom; +44 (0)2922941119; Wales. REC2@wales.nhs.uk), ref: 23/WA/0283

Primary study design
Interventional

Study design
Open-label single-arm interventional trial

Study type(s)
Prevention

Health condition(s) or problem(s) studied
Herpes zoster (shingles) in people living with HIV

Interventions
This is an open-label, single-arm, interventional trial involving HZ/Su (SHINGRIX), with a vaccination schedule consisting of two doses of 0.5 ml each: an initial dose followed by a second dose 2 months later.

Intervention Type
Drug

Phase
Phase IV

Drug/device/biological/vaccine name(s)
Shingrix powder and suspension for suspension for injection, Herpes zoster vaccine [varicella-zoster virus]

Primary outcome(s)
1. Total VZV-specific cell-mediated response measured using ELISPOT in peripheral blood mononuclear cells (PBMCs) from baseline to week 12 (4 weeks after the second vaccine dose)
2. Total VZV-specific antibody measured using ELISA in plasma from baseline to week 12 (4 weeks after the second vaccine dose)

Key secondary outcome(s)
1. Evolution of VZV-specific cell-mediated response over the study period, measured at baseline (first vaccine dose), week 4, week 8, week 12, week 24 and week 48 (PBMCs)

2. Evolution of VZV-specific antibody over the study period, measured at baseline (first vaccine dose), week 4, week 8, week 12, week 24 and week 48 (plasma)
3. Occurrence of adverse events of Grade 2 or higher severity (from Electronic Data Capture [EDC]) between screening and week 48
4. Viral sequence of shingles infections (in swabs) measured using nucleic acid magnetic bead extraction and real-time RT-PCR (reverse transcription and polymerase chain reaction) to determine the presence of viral genes, viral titres and viral sequence at week 48

Completion date
31/12/2025

Eligibility

Key inclusion criteria
1. Able and willing to comply with the requirements of the protocol
2. Able and willing to provide fully informed consent
3. Male or non-pregnant, non-lactating females
4. People living with HIV >50 years and over OR have perinatally acquired HIV (any CD4) and are aged 18 years and over
5. If female, of child-bearing age, not sterilised and participating in sexual intercourse that could result in pregnancy, using at least one acceptable method of contraception when engaging in sexual activities that can result in pregnancy, beginning at screening through month 4. Acceptable methods of contraception include the following:
5.1. Hormonal contraception
5.2. Male or female condom
5.3. Diaphragm or cervical cap with a spermicide
5.4. Intrauterine device

Participant type(s)
Patient

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
100 Years

Sex
All

Total final enrolment
67

Key exclusion criteria

1. Active herpes zoster disease in past 6 months preceding the first dose of study vaccine
2. If female, planning to get pregnant, currently pregnant (evidence from positive serum or urine pregnancy test), or breastfeeding
3. Used any investigational or non-registered product other than the study vaccine within 30 days preceding the first dose of study vaccine or planned use during the study period
4. Vaccinated within the 12 months preceding the first dose of study vaccine or planned to be vaccinated during the study with a (non-study) vaccine against herpes zoster or varicella zoster virus
5. History of any reaction or hypersensitivity likely to be exacerbated by any vaccine component
6. Received or planned to receive a live vaccine in the period starting 30 days before the first dose of study vaccine and ending 30 days after the last dose of study vaccine or had received or planned to receive a non-replicating vaccine within 8 days before or within 14 days after either dose of study vaccine
7. Acute disease and/or fever at the time of enrolment. Fever is defined as temperature ≥ 37.5°C (99.5°F) on oral, axillary or tympanic setting. The preferred route for recording temperature in this study will be oral. Subjects with a minor illness (such as mild diarrhoea, mild upper respiratory infection) without fever may, be enrolled at the discretion of the investigator.
8. Chronic administration (defined as more than 15 consecutive days) of immunosuppressants or other immune-modifying drugs within six months prior to the first vaccine dose. For corticosteroids, this will mean prednisone < 20 mg/day, or equivalent, is allowed. Inhaled and topical steroids are allowed. Drugs include: chemotherapeutic drugs, immunomodulators and systemic immunosuppressive treatments, oral glucocorticoids >20 mg/day, cyclosporine, methotrexate, interleukins and/or cytokines, immunotherapies (including TNF blockers).
9. Any other clinical condition that, in the opinion of the investigator, might pose additional risk to the subject due to participation in the study
10. History of potential immune-mediated disease (pIMD). Note: If the subject has any condition on the list of pIMDs specified in the protocol, they must be excluded unless the aetiology is clearly documented to be non-immune mediated

Date of first enrolment
18/03/2024

Date of final enrolment
21/10/2024

Locations

Countries of recruitment
United Kingdom

England

Study participating centre
Guys Hospital
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Study participating centre
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Sponsor information

Organisation
Guy's and St Thomas' NHS Foundation Trust

ROR
https://ror.org/00j161312

Funder(s)

Funder type
Industry

Funder Name
GlaxoSmithKline

Alternative Name(s)
GlaxoSmithKline plc., GSK plc., GlaxoSmithKline plc, GSK

Funding Body Type
Government organisation

Funding Body Subtype
For-profit companies (industry)

Location
United Kingdom

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Data sharing statement to be made available at a later date

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Protocol file	version 1.1	23/10/2023	20/02/2024	No	No
Protocol file	version 3.1	11/07/2025	10/11/2025	No	No