

Bladder EpiCheck - testing a urine test to help detect bladder cancer in people with blood in their urine

Submission date 30/01/2025	Recruitment status Recruiting	☒ Prospectively registered ☐ Protocol
Registration date 30/01/2025	Overall study status Ongoing	☐ Statistical analysis plan ☐ Results
Last Edited 22/06/2026	Condition category Cancer	☐ Individual participant data ☒ Record updated in last year

Plain English summary of protocol

Background and study aims

Blood in the urine (haematuria) can be a sign of bladder or urothelial cancer. Currently, when someone has blood in their urine, they will often need to have a camera examination of their bladder (cystoscopy) to check for cancer. The main purpose of this study is to test how well a new urine test (called Bladder EpiCheck) can detect urothelial carcinoma including bladder cancer and upper tract urothelial cancer in people who have blood in their urine. We are looking for participants who are due to have a scheduled standard camera examination of their bladder (called a cystoscopy) within 60 days of joining the study. We will ask them for one urine sample. The study will measure how accurately Bladder EpiCheck can identify both people who do have bladder cancer (measured as sensitivity) and people who don't have bladder cancer (measured as specificity), by comparing the urine test results tested with the Bladder EpiCheck to the results from the camera examination and any tissue samples taken. The study will also compare how well Bladder EpiCheck performs against another standard urine test called cytology, and will specifically look at how good it is at detecting more aggressive types of bladder cancer.

Who can participate?

People aged 45 years or older who have had blood in their urine (either visible or detected through testing) within the last 6 months and are scheduled to have a camera examination of their bladder. Participants must not have previously been diagnosed with bladder cancer, had a bladder camera examination for blood in urine in the past 2 years, or been treated for prostate or kidney cancer in the last 12 months.

What does the study involve?

Participants will be asked to provide a urine sample when they attend their scheduled hospital appointment for their bladder camera examination. This sample will be tested at a main central laboratory using Bladder EpiCheck. Neither the participant nor their doctor will be told the results of this test as it is for research purposes only. The study will compare the Bladder EpiCheck results with the results from standard hospital tests.

What are the possible benefits and risks of participating?

There are no direct benefits to participants, but the research may help improve how bladder cancer is detected in the future. There are no known risks from taking part as participants are only being asked to provide a urine sample.

Where is the study run from?

The study is being run at multiple NHS hospitals across the UK

When is the study starting and how long is it expected to run for?

December 2024 to August 2026

Who is funding the study?

Nucleix Ltd

Who is the main contact?

Jack Kerrigan

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Contact information

Type(s)

Public, Scientific

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Type(s)

Principal investigator

Contact name

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Additional identifiers

Integrated Research Application System (IRAS)

353608

Central Portfolio Management System (CPMS)

66812

DMS No

68096

Study information

Scientific Title

Bladder EpiCheck® for the primary detection of urothelial carcinoma in subjects presenting with haematuria: a multicentre, prospective, double-blind, non-interventional, single-arm study

Study objectives

The purpose of this study is to further validate the performance of the Bladder EpiCheck test for the detection of primary urothelial carcinoma in subjects presenting with haematuria (non-visible [micro] or visible [macro/gross]) within 6 months of enrollment as compared to standard of care cystoscopic examination and pathological confirmation (if indicated).

The sensitivity and specificity of the test will be compared to the Reference Standard, based on cystoscopy and pathology if indicated.

Ethics approval required

Ethics approval required

Ethics approval(s)

Approved 27/02/2025, Ethics North East - Newcastle & North Tyneside 1 (2 Redman Place, Stratford, London, E20 1JQ, United Kingdom; +44 (0)207 104 8384; newcastlenorthtyneside1.rec@hra.nhs.uk), ref: 25/NE/0035

Primary study design

Observational

Study design

Multicentre prospective double-blind non-interventional single-arm study

Study type(s)

Diagnostic

Health condition(s) or problem(s) studied

Urothelial carcinoma

Interventions

Participants will be asked to attend their routine hospital appointment, and at this appointment provide a urine sample. There will be no additional hospital visits required for this research. This urine sample will be sent to a laboratory to be tested using the Bladder EpiCheck. The participant or doctor will not be told of the results. They will be compared to the usual hospital results for research purposes only.

Intervention Type

Device

Phase

Not Applicable

Drug/device/biological/vaccine name(s)

Bladder EpiCheck

Primary outcome(s)

The sensitivity and specificity of Bladder EpiCheck to detect primary urothelial carcinoma, calculated versus the Reference Standard defined by cystoscopy, imaging, and, if indicated, pathological confirmation) in subjects presenting with haematuria (visible and/or non-visible). Measured at a single timepoint.

Key secondary outcome(s)

Measured at a single timepoint:

1. Non-inferiority of Bladder EpiCheck overall sensitivity vs cytology in the detection of primary urothelial carcinoma
2. Non-inferiority of Bladder EpiCheck specificity vs cytology in the detection of primary urothelial carcinoma
3. The sensitivity of the Bladder EpiCheck test to detect pathologically confirmed high-grade urothelial carcinoma, including HG non-muscle invasive and muscle-invasive disease

Completion date

30/11/2027

Eligibility**Key inclusion criteria**

1. Subjects aged 45 years or older
2. Subjects who are willing and able to provide written informed consent and adhere to study procedures
3. Subjects presenting with visible and/or non-visible haematuria within 6 months prior to study enrollment
4. Subjects scheduled to undergo standard-of-care cystoscopy for urinary bladder examination within 60 days after study enrollment
5. Subjects who are able to produce at least 10 ml of voided urine

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Mixed

Lower age limit

45 Years

Upper age limit

100 Years

Sex

All

Total final enrolment

0

Key exclusion criteria

1. Subjects with history of urothelial cancer in the bladder and/or upper urinary tract
2. Subjects who had prior cystoscopy for haematuria within the past 2 years
3. Subjects previously enrolled in this study
4. Subjects treated for prostate cancer within the last 12 months
5. Subjects treated for kidney cancer within the last 12 months
6. Subjects with untreated urinary tract infection
7. Subjects with symptomatic urinary tract stones (e.g. flank pain)
8. Subjects on dialysis for end-stage renal failure
9. Subjects with a long-term urinary catheter
10. Pregnancy (self-reported)
11. Subjects who, because of medical status, or frailty is not expected to be able to complete the full diagnostic pathway

Date of first enrolment

20/06/2025

Date of final enrolment

30/11/2026

Locations**Countries of recruitment**

United Kingdom

England

Scotland

Study participating centre**Western General Hospital**

Crewe Road

Edinburgh

Scotland

EH4 2XU

Study participating centre

Frimley Health NHS Foundation Trust
Portsmouth Road
Frimley
Camberley
England
GU16 7UJ

Study participating centre

NHS Fife

Hayfield House
Hayfield Road
Kirkcaldy
Scotland
KY2 5AH

Study participating centre

Addenbrookes Hospital

Cambridge Biomedical Campus
Hills Road
Cambridge
England
CB2 0QQ

Study participating centre

Guys Hospital

The Guys and Lewisham NHS Trust
St Thomas Street
London
England
SE1 9RT

Sponsor information

Organisation

Nucleix (Israel)

ROR

<https://ror.org/0584knp84>

Funder(s)

Funder type

Industry

Funder Name

Nucleix Ltd

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary

Data sharing statement to be made available at a later date