

# GenOMICC study - Looking at DNA of patients with severe illness and injury to find the genes that cause some people to become very unwell and be admitted to intensive care

<b>Submission date</b> 01/06/2021	<b>Recruitment status</b> Recruiting	<input type="checkbox"/> Prospectively registered
		<input type="checkbox"/> Protocol
<b>Registration date</b> 25/06/2021	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan
		<input checked="" type="checkbox"/> Results
<b>Last Edited</b> 17/01/2025	<b>Condition category</b> Infections and Infestations	<input type="checkbox"/> Individual participant data

## Plain English summary of protocol

### Background and study aims

This study aims to identify genetic predisposition to specific syndromes of critical illness. Specifically, susceptibility to life-threatening infections caused by an identified pathogen, and susceptibility to death following the onset of organ failure due to sepsis or sterile injury. In order to maximise the probability of identifying host genetic loci associated with susceptibility, we will restrict some analyses to younger individuals in good general health, and lacking in known predisposing factors.

The same principle was used to determine an upper age limit for inclusion for some analyses. With advancing age, there is an increase in undiagnosed comorbidity, frailty, and susceptibility to serious complications of infection or critical injury. There is therefore an increase in the probability of susceptibility to, and mortality from, critical illness that is consequent upon non-genetic factors.

### Who can participate?

Prospective recruitment - Patients meeting the entry criteria (5.5) will be asked to provide informed consent, and a single DNA sample.

Recruitment of survivors - The group of survivors eligible for recruitment for this study are generally healthy individuals who have suffered critical illness.

### What does the study involve?

Informed consent, and a single DNA sample.

### What are the possible benefits and risks of participating?

There are no potential benefits to an individual from participation. However, if successfully completed, this study may provide fundamental insights into the pathogenesis of critical illness in infectious diseases and may ultimately lead to the development of novel treatments that could prevent flu and other diseases.

Where is the study run from?  
The University of Edinburgh (UK)

When is the study starting and how long is it expected to run for?  
December 2014 to August 2029

Who is funding the study:  
Sepsis Research (FEAT), Intensive Care Society, the Wellcome Trust, and the Medical Research Council (UK)

Who is the main contact:  
Dr Kenneth Baillie,  
Genomic.study@ed.ac.uk

**Study website**  
<https://genomicc.org/>

## Contact information

**Type(s)**  
Scientific

**Contact name**  
Dr Kenneth Baillie

**ORCID ID**  
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## Additional identifiers

**EudraCT/CTIS number**  
Nil known

**IRAS number**  
189676

**ClinicalTrials.gov number**  
Nil known

## Secondary identifying numbers

IRAS 189676 (Scotland), IRAS 269326 (England/Wales)

# Study information

## Scientific Title

Genetics Of susceptibility and Mortality In Critical Care (GenOMICC)

## Acronym

GenOMICC

## Study objectives

What are the genes that cause some people to be susceptible to life-threatening infection, or death from critical illness?

## Ethics approval required

Old ethics approval format

## Ethics approval(s)

1. Approved 08/12/2016, Scotland A REC (2nd Floor Waverley Gate, 2 - 4 Waterloo Place, Edinburgh, EH1 3EG, UK; +44(0)131 465 5678; Manx.Neill@nhslothian.scot.nhs.uk), ref 15/SS/0180/AM01/1
2. Approved 10/10/2019, Health Research Authority (Skipton House, 80 London Road, London, SE1 6LH, UK; +44 (0)20 7972 2545; hra.approval@nhs.net), ref: 19/WM/0247

## Study design

Multi-centre prospective observational study

## Primary study design

Observational

## Secondary study design

Case-control study

## Study setting(s)

Hospital

## Study type(s)

Screening

## Participant information sheet

Patient information material can be found at <https://genomicc.org/investigators/protocol/uk/>

## Health condition(s) or problem(s) studied

Genetics of susceptibility and mortality in life-threatening infection

## Interventions

Current interventions as of 15/04/2024:

People with severe illness (such as COVID-19, influenza, sepsis, and other causes of critical illness), and healthy volunteers (for comparison) will be approached to participate in the study.

Participants will be asked to consent by signing a consent form. A single blood sample will be taken (roughly 4 ml) to get a DNA sample. If a participant is unable to give a blood sample for any reason, a sample of saliva may be taken instead in some circumstances. For those participants who have been discharged from the hospital, a research nurse will arrange a home visit at a convenient time, or a saliva sample kit can be sent if preferred.

#### Previous interventions:

People with severe illness (such as COVID-19, influenza, sepsis, and other causes of critical illness), and healthy volunteers (for comparison) will be approached to participate in the study.

Participants will be asked to consent by signing a consent form. A single blood sample will be taken (9 ml; roughly 2 teaspoons) to get a DNA sample. If a participant is unable to give a blood sample for any reason, a sample of saliva may be taken instead in some circumstances. For those participants who have been discharged from the hospital, a research nurse will arrange a home visit at a convenient time, or a saliva sample kit can be sent if preferred.

### Intervention Type

Other

### Primary outcome measure

60-day survival measured using electronic medical records post recruitment

### Secondary outcome measures

The genetic data from severely ill patients will be measured in comparison with the genetic data from volunteers who suffered only mild symptoms using whole genome sequencing and/or SNP arrays at one-time point to try to determine which genes might play a part in an illness progressing to critical illness

### Overall study start date

01/12/2014

### Completion date

31/08/2029

## Eligibility

### Key inclusion criteria

1. Patients will be recruited who:
  - 1.1. Are deemed, in the view of the treating physician, to require continuous cardiovascular or respiratory monitoring or invasive mechanical ventilation,
  - 1.2. AND provide appropriate consent or assent,
  - 1.3. AND present with one of the following primary diagnoses:
2. Group 1: specific infectious syndromes in highly-selected patients
  - 2.1. COVID-19. Confirmed or suspected COVID-19.
  - 2.2. Influenza. Confirmed or suspected infection with influenza virus.
  - 2.3. Secondary pneumonia. Acute pneumonia complicating confirmed infection with influenza virus.
  - 2.4. Dengue. Confirmed or suspected infection with dengue virus.
  - 2.5. RSV. Confirmed infection with respiratory syncytial virus.
  - 2.6. Emerging infections. Confirmed or suspected infection with an emerging infection (see

below).

3. Group 2: specific non-infectious critical illness syndromes:

3.1. Burns. Full-thickness burns covering >20% of body surface area.

3.2. Emerging critical illness syndromes. Confirmed or suspected presence of an emerging critical illness syndrome. These are unexplained or idiosyncratic presentations of acute organ injury, or suspected reactions to therapeutic agents, including:

3.3. acute disease associated with inhalation of noxious substances or vapours, such as "vaping"

3.4. acute disease associated with CAR T-cell therapy

4. Group 3: extreme critical illness

4.1. Extra-corporeal life support. Requirement for continuous veno-venous extra-corporeal support for respiratory failure of any aetiology.

5. Group 4: common/nonspecific critical illness syndromes:

5.1. Cellulitis. Soft tissue infections causing systemic sepsis.

5.2. Pneumonia. Primary pneumonia of any aetiology, with radiographic changes at presentation to critical care. Pneumonia is defined as: symptoms and signs consistent with an acute lower respiratory tract infection associated with new radiographic shadowing for which there is no other explanation (eg, not pulmonary oedema or infarction). Where this illness is the primary reason for hospital admission and is managed as pneumonia, the patient is eligible for inclusion. (Harris et al, 2011). No microbiology information is required to meet this entry criterion.

5.3. Pancreatitis. Pancreatitis of any aetiology.

5.4. Emerging Infections

Emerging infections are by their nature unpredictable and present a significant challenge to the international research community. In order to ensure research preparedness, in accordance with the principles laid out by the International Severe Acute and Emerging Infection Consortium (ISARIC)(Dunning et al. 2014), patients will be recruited to this study if they have confirmed or suspected infection with a novel pathogen, a new strain of an existing pathogen, or a re-emerging known pathogen, that causes life-threatening illness. This will include the Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS), highly pathogenic strains of influenza, Ebola virus disease and other epidemics of viral haemorrhagic fever.

## **Participant type(s)**

Patient

## **Age group**

Mixed

## **Sex**

Both

## **Target number of participants**

40,000

## **Key exclusion criteria**

Current participant exclusion criteria as of 25/01/2023:

There are no exclusion criteria. All consenting patients can be recruited.

Previous participant exclusion criteria:

Exclusion criteria do not apply to COVID-19. All consenting COVID-19 patients will be included. For all inclusion categories apart from COVID-19, patients who are functionally limited by any comorbid illness (such as frailty, heart failure, chronic obstructive pulmonary disease (COPD), or

reduced exercise tolerance of any cause) or have significant immunosuppression (such as cancer chemotherapy or acquired immune deficiency syndrome) will be excluded from this study.

**Date of first enrolment**

01/01/2016

**Date of final enrolment**

31/08/2029

## **Locations**

**Countries of recruitment**

Canada

England

Ireland

Northern Ireland

Scotland

United Kingdom

Wales

**Study participating centre**

**Royal Infirmary of Edinburgh**

51 Little France Crescent

Edinburgh

United Kingdom

EH16 4SA

**Study participating centre**

**Western General Hospital**

Crewe Road

Edinburgh

United Kingdom

EH4 2XU

**Study participating centre**

**St Johns Hospital**

Howden W Road

Howden

Livingston

United Kingdom  
EH54 6PP

**Study participating centre**  
**Royal Hospital for Sick Children**  
Royal Infirmary of Edinburgh  
51 Little France Crescent  
Edinburgh  
United Kingdom  
EH16 4SA

**Study participating centre**  
**Airedale NHS Foundation Trust**  
Skipton Road  
Steeton  
KEIGHLEY  
United Kingdom  
BD20 6TD

**Study participating centre**  
**Alder Hey Children's NHS Foundation Trust**  
Eaton Road  
Liverpool  
United Kingdom  
L12 2AP

**Study participating centre**  
**Royal Gwent Hospital**  
Cardiff Road  
Newport  
United Kingdom  
NP20 2UB

**Study participating centre**  
**The Grange Hospital**  
Llanyravon  
CWNBRAN  
United Kingdom  
NP44 2XJ

**Study participating centre**  
**Ashford and St Peters Hospital**  
Guildford Road  
CHERTSEY  
United Kingdom  
KT16 0PZ

**Study participating centre**  
**Queens Hospital**  
Barking, Havering and Redbridge University Hospitals NHS Trust  
Rom Valley Way  
ROMFORD  
United Kingdom  
RM7 0AG

**Study participating centre**  
**Barnsley District General Hospital**  
Barnsley Hospital NHSFT  
Gawber Road  
BARNSLEY  
United Kingdom  
S75 2EP

**Study participating centre**  
**The Royal London Hospital**  
Whitechapel Road, Whitechapel  
London  
United Kingdom  
E1 1BB

**Study participating centre**  
**Bedford Hospital NHS Trust**  
King's Place  
Britannia Road  
BEDFORD  
United Kingdom  
MK42 9DJ

**Study participating centre**



**BELFAST HEALTH AND SOCIAL CARE TRUST**

Royal Victoria Hospital, 274 Grosvenor Road, Belfast,  
Belfast  
United Kingdom  
BT12 6BA

**Study participating centre****Belfast City Hospital**

Lisburn Rd  
Belfast  
United Kingdom  
BT9 7AB

**Study participating centre****St Bartholomew's Hospital**

W Smithfield,  
London  
United Kingdom  
EC1A 7BE

**Study participating centre****Newham University Hospital**

Glen Rd  
London  
United Kingdom  
E13 8SL

**Study participating centre****Whipps Cross Hospital**

Whipps Cross Rd, Leytonstone  
London  
United Kingdom  
E11 1NR

**Study participating centre****Mile End Hospital**

via A104, Bancroft Rd  
London  
United Kingdom  
E1 4DG

**Study participating centre**  
**Ysbyty Gwynedd**  
Penrhosgarnedd  
BANGOR  
United Kingdom  
LL57 2PW

**Study participating centre**  
**Glan Clwyd Hospital**  
Sarn Lan, Bodelwyddan  
Denbighshire  
United Kingdom  
LL18 5UJ

**Study participating centre**  
**Wrexham Maelor Hospital**  
Crosenewydd Road  
WREXHAM  
United Kingdom  
LL13 7TD

**Study participating centre**  
**Birmingham Women's and Children's Hospital**  
Steelhouse Lane  
BIRMINGHAM  
United Kingdom  
B4 6NH

**Study participating centre**  
**Blackpool Teaching Hospitals NHS Foundation Trust**  
Blackpool Victoria Hospital  
Whinney Heys Road, Lancashire,  
BLACKPOOL  
United Kingdom  
FY3 8NR

**Study participating centre**  
**Bolton NHS Foundation Trust,**  
Minerva Road, Farnworth,

Bolton  
United Kingdom  
BL4 0JR

**Study participating centre**  
**Bradford Teaching Hospitals NHS Foundation Trust**  
Duckworth Lane  
BRADFORD  
United Kingdom  
BD9 6R

**Study participating centre**  
**Princess Royal Hospital**  
Lewes Road  
Haywards Heath  
United Kingdom  
RH16 4EX

**Study participating centre**  
**Royal Sussex County Hospital**  
Eastern Road  
Brighton  
United Kingdom  
BN2 5BE

**Study participating centre**  
**ROYAL ALEXANDRA CHILDREN'S HOSPITAL**  
Royal Sussex County Hospital  
Eastern Road  
BRIGHTON  
Brighton  
United Kingdom  
BN2 5BE

**Study participating centre**  
**Stoke Mandeville Hospital**  
Buckinghamshire Healthcare NHS Trust  
Mandeville Road  
AYLESBURY  
United Kingdom  
HP21 8AL

**Study participating centre**  
**Calderdale Royal Hospital**  
Salterhebble  
HALIFAX  
United Kingdom  
HX3 0PW

**Study participating centre**  
**Huddersfield Royal Infirmary**  
Acre Street  
Lindley  
HUDDERSFIELD  
United Kingdom  
HD3 3EA

**Study participating centre**  
**Addenbrooke's Hospital**  
Hills Road,  
Cambridge  
United Kingdom  
CB2 0QQ

**Study participating centre**  
**University Hospital of Wales and Queen Elizabeth II Wales**  
Heath Park,  
CARDIFF  
United Kingdom  
CF14 4XW

**Study participating centre**  
**Chelsea and Westminster Hospital,**  
369 Fulham Road  
London  
United Kingdom  
SW10 9NH

**Study participating centre**

**West Middlesex University Hospital**

R&D Office

4th Floor, East wing

West Middlesex University Hospital

Twickenham Road

ISLEWORTH

United Kingdom

TW7 6AF

**Study participating centre**

**Chesterfield Royal Hospital**

Chesterfield Road, Calow,

Chesterfield,

United Kingdom

S44 5BL

**Study participating centre**

**Countess of Chester Hospital**

Liverpool Road,

Chester,

United Kingdom

CH2 1UL

**Study participating centre**

**University Hospital of North Durham**

North Road

DURHAM

United Kingdom

DH1 5TW

**Study participating centre**

**County Durham and Darlington NHS Foundation Trust,**

Darlington Memorial Hospital,

Hollyhurst Road,

Darlington,

United Kingdom

DL3 6HX

**Study participating centre**

**Croydon University Hospital,**

530 London Road,

Croydon,  
United Kingdom  
CR7 7YE

**Study participating centre**  
**Royal Glamorgan Hospital,**  
Ynysmaerdy, Llantrisant,  
Rhondda Cynon Taf  
United Kingdom  
CF72 8XR

**Study participating centre**  
**Prince Charles Hospital**  
Gurnos Road  
MERTHYR TYDFIL  
United Kingdom  
CF47 9DT

**Study participating centre**  
**Princess of Wales Hospital**  
Coity Road  
BRIDGEND  
United Kingdom  
CF31 1RQ

**Study participating centre**  
**Darent Valley Hospital**  
Darent Wood Rd,  
Dartford  
United Kingdom  
DA2 8DA

**Study participating centre**  
**Dorset County Hospital**  
Williams Avenue,  
Dorchester,  
United Kingdom  
DT1 2JY

**Study participating centre**  
**East and North Hertfordshire NHS Trust**  
Lister Hospital,  
Coreys Mill Lane,  
Stevenage,  
United Kingdom  
SG1 4AB

**Study participating centre**  
**Macclesfield District General Hospital,**  
East Cheshire NHS Trust  
Victoria Road,  
Macclesfield,  
United Kingdom  
SK10 3BL

**Study participating centre**  
**The William Harvey Hospital**  
Kennington Road  
ASHFORD  
United Kingdom  
TN24 0LZ

**Study participating centre**  
**Queen Elizabeth the Queen Mother Hospital**  
St Peters Road  
KENT  
Margate  
United Kingdom  
CT9 4AN

**Study participating centre**  
**Kent and Canterbury Hospital**  
Ethelbert Road  
Kent  
Kent,  
United Kingdom  
CT1 3NG

**Study participating centre**

**Royal Blackburn Teaching Hospital**

Haslingden road,  
Lancashire  
Blackburn  
United Kingdom  
BB2 3HH

**Study participating centre**

**ESNEFT Colchester General Hospital,**

Turner Road,  
Essex  
Colchester  
United Kingdom  
CO4 5JR

**Study participating centre**

**ESNEFT Ipswich Hospital**

Health Road,  
Ipswich,  
United Kingdom  
IP4 5PD

**Study participating centre**

**Eastbourne District General Hospital and Conquest Hospital,**

Kings Drive, East Sussex,  
Eastbourne  
United Kingdom  
BN21 2UD

**Study participating centre**

**Frimley Health NHS Foundation Trust**

Pine House,  
Frimley,  
Surrey,  
Camberley,  
United Kingdom  
GU16 7UJ

**Study participating centre**

**Queen Elizabeth Hospital,**  
Queen Elizabeth Avenue,



Sheriff Hill,  
Gateshead,  
United Kingdom  
NE9 6SX

**Study participating centre**  
**Gloucestershire Royal Hospital**  
Great Western Road,  
Gloucester  
United Kingdom  
GL1 3NN

**Study participating centre**  
**Aberdeen Royal Infirmary**  
Foresterhill Road,  
Aberdeen  
United Kingdom  
AB25 2ZN

**Study participating centre**  
**UCL Great Ormond Street Institute of Child Health (ICH) & Great Ormond Street Hospital (GOSH)**  
30 Guilford Street,  
London  
United Kingdom  
WC1N 1EH

**Study participating centre**  
**Great Western Hospital NHS Foundation Trust**  
Great Western Hospital ,  
Marlborough Road,  
Wiltshire,  
Swindon  
United Kingdom  
SN3 6BB

**Study participating centre**  
**Guy's Hospital,**  
Greta Maze Pond,  
London  
United Kingdom  
SE1 9RT

**Study participating centre**

**Guy's and St Thomas' NHS Foundation Trust**  
Sydney Street,  
London,  
United Kingdom  
SW3 6NP

**Study participating centre**

**Royal Hampshire County Hospital**  
Romsey Rd,  
Winchester,  
United Kingdom  
SO22 5DG

**Study participating centre**

**Basingstoke and North Hampshire Hospital**  
Aldermaston Road,  
Hampshire  
Basingstoke,  
United Kingdom  
RG24 9NA

**Study participating centre**

**Harrogate District Hospital NHS Foundation Trust**  
Lancaster Park Road,  
North Yorkshire,  
Harrogate,  
United Kingdom  
HG2 7SX

**Study participating centre**

**Homerton University Hospital NHS Foundation Trust**  
Homerton Row,  
London  
United Kingdom  
E9 6SR

**Study participating centre**

**Hull Royal Infirmary,**  
Anlaby Rd,  
Hull  
United Kingdom  
HU3 2JZ

**Study participating centre**  
**Withybush Hospital**  
Fishguard Road,  
Pembrokeshire,  
Haverfordwest,  
United Kingdom  
SA61 2PZ

**Study participating centre**  
**Glangwili General Hospital**  
Dolgwili Road  
CARMARTHEN  
United Kingdom  
SA31 2AF

**Study participating centre**  
**Tŷ Geraint Bronglais General Hospital**  
Caradoc Rd,  
ABERYSTWYTH  
United Kingdom  
SY23 1ER

**Study participating centre**  
**Prince Philip Hospital,**  
Dafen,  
Llanelli,  
United Kingdom  
SA14 8QF

**Study participating centre**  
**St. Mary's Hospital**  
Praed Street  
London  
United Kingdom  
W2 1NY

**Study participating centre**  
**Charing Cross Hospital**  
Fulham Palace Road  
London  
United Kingdom  
W6 8RF

**Study participating centre**  
**Hammersmith Hospital**  
150, Du Cane Road  
London  
United Kingdom  
W12 0HS

**Study participating centre**  
**St Mary's Hospital,**  
Parkhurst Road  
Isle of Wight  
Newport,  
United Kingdom  
PO30 5TG

**Study participating centre**  
**James Paget Hospital,**  
Lowestoft Road,  
Gorleston-on-Sea,  
Norfolk,  
Great Yarmouth,  
United Kingdom  
NR31 6LA

**Study participating centre**  
**Kettering General Hospital NHS Foundation Trust,**  
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Kettering  
Northants  
United Kingdom  
NN16 8UZ

**Study participating centre**  
**Kings College Hospital,**  
Denmark Hill,  
London  
United Kingdom  
Kings College Hospital, Denmark Hill, London, SE5 9RS

**Study participating centre**  
**Kingston Hospital NHS Foundation Trust,**  
Galsworthy Road, Surrey,  
Kingston Upon Thames,  
United Kingdom  
KT2 7QB

**Study participating centre**  
**Royal Preston Hospital,**  
Sharoe Green Lane,  
Fulwood,  
Preston,  
United Kingdom  
PR2 9HT

**Study participating centre**  
**St James University Hospital**  
Beckett Street  
LEEDS  
United Kingdom  
LS9 7TF

**Study participating centre**  
**Leeds General Infirmary**  
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Leeds  
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LS1 3EX

**Study participating centre**  
**Queen Elizabeth Hospital,**  
Stadium Road,  
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United Kingdom  
SE18 4QH

**Study participating centre**  
**University Hospital Lewisham**  
Lewisham High St  
Lewisham  
London  
United Kingdom  
SE13 6LH

**Study participating centre**  
**Liverpool Heart And Chest Hospital NHS Foundation Trust,**  
Galsworthy Road,  
Liverpool\_Chest Upon Thames,  
Surrey  
United Kingdom  
KT1 7QB

**Study participating centre**  
**The Royal Liverpool University Hospital,**  
Prescot Street,  
Liverpool  
United Kingdom  
L7 8XP

**Study participating centre**  
**Aintree University Hospital**  
Longmoor Lane  
Liverpool  
United Kingdom  
L9 7AL

**Study participating centre**  
**Northwick Park Hospital**  
Watford Road,  
Harrow  
United Kingdom  
HA1 3UJ

**Study participating centre**

**Ealing Hospital**

Uxbridge Road,  
Southall  
United Kingdom  
UB1 3HW

**Study participating centre**

**Maidstone and Tunbridge Wells NHS Trust**

Hermitage Lane,  
Maidstone,  
Kent  
United Kingdom  
ME16 9QQ

**Study participating centre**

**Tunbridge Wells Hospital**

Tonbridge Road  
PEMBURY  
United Kingdom  
TN2 4QJ

**Study participating centre**

**Manchester University Manchester Royal Infirmary NHS Foundation Trust**

North Road  
Manchester  
United Kingdom  
M13 9WL

**Study participating centre**

**Wythenshawe Hospital**

Southmoor Road  
Manchester  
United Kingdom  
M23 9QZ

**Study participating centre**

**Royal Manchester Children's Hospital**

North Road  
Oxford Road Campus

Manchester  
United Kingdom  
M13 9WL

**Study participating centre**  
**Medway NHS Foundation Trust**  
Gate Lodge, Maritime Hospital,  
Windmill Road,  
Gillingham,  
Kent  
United Kingdom  
ME7 5NY

**Study participating centre**  
**Basildon University Hospital,**  
Nethermayne,  
Basildon  
United Kingdom  
SS16 5NL

**Study participating centre**  
**Southend Hospital**  
Prittlewell Chase  
WESTCLIFF-ON-SEA  
United Kingdom  
SS0 0RY

**Study participating centre**  
**Broomfield Hospital,**  
Broomfield Hospital, Court Road,  
Chelmsford  
United Kingdom  
CM1 7ET

**Study participating centre**  
**Pinderfields Hospital,**  
Mid Yorkshire Hospitals NHS Trust  
Aberford Road,  
Wakefield  
United Kingdom  
WF1 4AL



**Study participating centre**  
**Milton Keynes University Hospital**  
Standing Way,  
Eaglestone,  
Milton Keynes  
United Kingdom  
MK6 5LD

**Study participating centre**  
**Crosshouse Hospital**  
Kilmarnock Road  
KILMARNOCK  
United Kingdom  
KA2 0BE

**Study participating centre**  
**University Hospital Ayr**  
Dalmellington Rd,  
AYR  
United Kingdom  
KA6 6DX

**Study participating centre**  
**Borders General Hospital**  
Huntlyburn Terrace  
MELROSE  
United Kingdom  
TD6 9BS

**Study participating centre**  
**Dumfries and Galloway Royal Infirmary**  
Cargenbridge  
DUMFRIES  
United Kingdom  
DG2 8RX

**Study participating centre**

**Victoria Hospital**  
Hayfield Road  
KIRKCALDY  
United Kingdom  
KY2 5AH

**Study participating centre**  
**Forth Valley Royal Hospital**  
Stirling Road  
LARBERT  
United Kingdom  
FK5 4WR

**Study participating centre**  
**Queen Elizabeth University Hospital**  
1345 Govan Road  
Glasgow  
United Kingdom  
G51 4TF

**Study participating centre**  
**Glasgow Royal Infirmary**  
10-16 Alexandra Parade  
Glasgow  
United Kingdom  
G31 2ER

**Study participating centre**  
**Royal Hospital for Children,**  
Queen Elizabeth University Hospital,  
1345 Govan Road,  
Glasgow  
United Kingdom  
G51 4TF

**Study participating centre**  
**Royal Alexandra Hospital**  
Corsebar Road  
Paisley  
United Kingdom  
PA2 9PN

**Study participating centre**

**Raigmore Hospital**

Old Perth Road  
Inverness  
United Kingdom  
IV2 3UJ

**Study participating centre**

**University Hospital Hairmyres**

Eaglesham Road  
East Kilbride  
United Kingdom  
G75 8RG

**Study participating centre**

**University Hospital Wishaw,**

50 Netherton Street  
Wishaw  
United Kingdom  
ML2 0DP

**Study participating centre**

**University Hospital Monklands**

Monkscourt Avenue  
AIRDRIE  
United Kingdom  
ML6 0JS

**Study participating centre**

**Golden Jubilee National Hospital**

Agamemnon Street  
Clydebank  
Glasgow  
United Kingdom  
G81 4DY

**Study participating centre**

**Norfolk & Norwich University NHS Foundation Trust,**  
Colney Lane  
Norwich  
United Kingdom  
NR4 7UY

**Study participating centre**  
**Southmead Hospital**  
Westbury-on-Trym  
Bristol  
United Kingdom  
BS10 5NB

**Study participating centre**  
**Cumberland Infirmary**  
New Town Road  
Carlisle  
Cumbria  
United Kingdom  
CA2 7HY

**Study participating centre**  
**West Cumberland Hospital**  
Homewood Road  
Whitehaven  
CUMBRIA  
United Kingdom  
CA28 8JG UK

**Study participating centre**  
**North Middlesex University Hospital NHS Trust**  
Sterling Way  
London  
United Kingdom  
N18 1QX

**Study participating centre**  
**University Hospital of North Tees**  
Hardwick

STOCKTON ON TEES  
United Kingdom  
TS19 8PE

**Study participating centre**  
**Hinchingbrooke Hospital**  
Parkway Hinchingbrooke  
HUNTINGDON  
United Kingdom  
PE29 6NT

**Study participating centre**  
**Peterborough City Hospital**  
Bretton gate  
PETERBOROUGH  
United Kingdom  
PE3 9GZ

**Study participating centre**  
**Northampton General Hospital NHS Trust**  
Cliftonville  
NORTHAMPTON  
United Kingdom  
NN1 5BD

**Study participating centre**  
**North Devon District Hospital**  
Raleigh Park  
BARNSTAPLE  
United Kingdom  
EX31 4JB

**Study participating centre**  
**Antrim Area Hospital,**  
Bush Road,  
Antrim  
United Kingdom  
BT41 2RL

**Study participating centre**  
**Diana, Princess of Wales Hospital**  
Scartho Road  
GRIMSBY  
United Kingdom  
DN33 2BA

**Study participating centre**  
**Scunthorpe General Hospital,**  
Cliff Gardens,  
Scunthorpe,  
United Kingdom  
DN15 7BH

**Study participating centre**  
**North Tyneside General Hospital,**  
Rake Lane,  
North Shields  
United Kingdom  
NE29 8NH

**Study participating centre**  
**Wansbeck General Hospital**  
Woodhorn Ln,  
Ashington  
United Kingdom  
NE63 9JJ

**Study participating centre**  
**Northumbria Specialist Emergency Care Hospital**  
Northumbria Way,  
Cramlington  
United Kingdom  
NE23 6NZ

**Study participating centre**  
**Nottingham University Hospital Queens**  
Queens Medical Centre Campus  
NOTTINGHAM  
United Kingdom  
NG7 2UH

**Study participating centre**

**John Radcliffe Hospital**

Headley Way  
Headington  
OXFORD  
United Kingdom  
OX3 9DU

**Study participating centre**

**Royal Papworth Hospital NHS Foundation Trust**

Papworth Road  
CAMBRIDGE  
United Kingdom  
CB2 0AY

**Study participating centre**

**Queen Alexandra Hospital**

Portsmouth  
COSHAM  
United Kingdom  
PO6 3LY

**Study participating centre**

**Queen Victoria Hospital**

Holtye Rd,  
East Grinstead  
United Kingdom  
RH19 3DZ

**Study participating centre**

**Royal Berkshire Hospital**

London Road  
BERKSHIRE  
Reading  
United Kingdom  
RG1 5AN

**Study participating centre**

**Royal Cornwall Hospital**

Treliske

Truro

United Kingdom

TR1 3LJ

**Study participating centre**

**Royal Devon and Exeter Foundation Trust**

Barrack Road

EXETER

United Kingdom

EX2 5DW

**Study participating centre**

**Royal Free Hospital NHS Trust,**

Pond St,

Hampstead,

London

United Kingdom

NW3 2QG

**Study participating centre**

**Barnet Hospital**

Wellhouse Lane

BARNET

United Kingdom

EN5 3DJ

**Study participating centre**

**Royal Surrey County Hospital,**

Egerton Road,

Guildford,

United Kingdom

GU2 7XX

**Study participating centre**

**Royal United Hospitals Bath NHS Foundation Trust,**

Combe Park,

Bath

United Kingdom

BA1 3NG



**Study participating centre**  
**Salford Royal NHS Foundation Trust**  
544 Eccles New Road  
Salford  
MANCHESTER  
United Kingdom  
M6 8HD

**Study participating centre**  
**Salisbury District Hospital**  
Odstock Road  
SALISBURY  
United Kingdom  
SP2 8BJ

**Study participating centre**  
**Sheffield Childrens Hospital**  
Western Bank  
SHEFFIELD  
United Kingdom  
S10 2TH

**Study participating centre**  
**The Royal Hallamshire Hospital**  
Glossop Road  
SHEFFIELD  
United Kingdom  
S10 2JF

**Study participating centre**  
**Northern General Hospital**  
Herries Rd,  
Sheffield  
United Kingdom  
S5 7AU

**Study participating centre**

**King's Mill Hospital**  
Mansfield Road  
SUTTON-IN-ASHFIELD  
United Kingdom  
NG17 4JL

**Study participating centre**  
**Royal Shrewsbury Hospital**  
Mytton Oak Road,  
Shrewsbury  
SHROPSHIRE  
United Kingdom  
SY3 8XQ

**Study participating centre**  
**Princess Royal Hospital**  
Apley Castle,  
Apley  
TELFORD  
United Kingdom  
TF1 6TF

**Study participating centre**  
**Musgrove Park Hospital,**  
Parkfield Drive,  
Taunton  
SOMERSET  
United Kingdom  
C Shovelton/ P Doble, Critical Care Research Nurses Old Building, generic office, Vascular dept  
Somerset NHS Foundation Trust Musgrove Park Hospital, Parkfield Drive, Taunton SOMERSET  
TA1 5DA

**Study participating centre**  
**James Cook University Hospital**  
Marton road  
Middlesbrough  
CLEVELAND  
United Kingdom  
TS4 3BW

**Study participating centre**

**Sunderland Royal Hospital**

Kayll Road  
SUNDERLAND  
United Kingdom  
SR4 7TP

**Study participating centre**

**Warwick Hospital,**

Lakin road,  
Warwick  
United Kingdom  
CV34 5BW

**Study participating centre**

**Craigavon Area Hospital**

68 Lurgan Road  
PORTADOWN  
United Kingdom  
BT63 5QQ

**Study participating centre**

**Southport and Ormskirk Hospitals NHS Trust**

Southport DGH,  
Town lane  
Kew  
SOUTHPORT  
United Kingdom  
PR8 6PN

**Study participating centre**

**St Georges Hospital NHS Foundation Trust,**

Blackshaw Road  
TOOTING  
London  
United Kingdom  
SW17 0QT

**Study participating centre**

**Whiston Hospital, Warrington Road, Prescott, L35 5DR**

Warrington Road,  
Prescot,

United Kingdom  
L35 5DR

**Study participating centre**  
**Stepping Hill Hospital**  
Stockport NHS Foundation  
Poplar Grove, Hazel Grove,  
STOCKPORT  
United Kingdom  
SK2 7JE

**Study participating centre**  
**East Surrey Hospital**  
Canada Avenue  
REDHILL  
United Kingdom  
RH1 5RH

**Study participating centre**  
**Morriston Hospital**  
Heol Maes Eglwys  
MORRISTON  
SWANSEA  
United Kingdom  
SA6 6NL

**Study participating centre**  
**Tameside General Hospital**  
Fountain Street  
ASHTON-UNDER-LYNE  
United Kingdom  
OL6 9R

**Study participating centre**  
**Ninewells Hospital and Medical School**  
James Arrott Drive  
DUNDEE  
United Kingdom  
DD1 9SY

**Study participating centre**  
**The Christie NHS Foundation Trust,**  
Wilmslow Road,  
Manchester  
United Kingdom  
M20 4BX

**Study participating centre**  
**Russells Hall Hospital,**  
Pensnett Rd,  
Dudley,  
United Kingdom  
DY1 2HQ

**Study participating centre**  
**Royal Victoria Infirmary**  
Queen Victoria Road  
NEWCASTLE UPON TYNE  
United Kingdom  
NE1 4LP

**Study participating centre**  
**Fairfield General Hospital**  
Rochdale Old Road  
BURY  
United Kingdom  
BL9 7TD

**Study participating centre**  
**The Royal Oldham Hospital**  
Rochdale Road  
OLDHAM  
United Kingdom  
OL1 2JH

**Study participating centre**  
**North Manchester General Hospital**  
Delaunays Road,  
Crumpsall  
MANCHESTER

United Kingdom  
M8 5RB

**Study participating centre**  
**The Princess Alexandra Hospital**  
Hamstel Road  
Harlow  
ESSEX  
United Kingdom  
CM20 1QX

**Study participating centre**  
**The Queen Elizabeth Hospital NHS Foundation Trust**  
Gayton Road  
KING'S LYNN  
United Kingdom  
PE30 4ET

**Study participating centre**  
**Rotherham Hospital**  
Moorgate Road  
ROTHERHAM  
United Kingdom  
S60 2UD

**Study participating centre**  
**The Royal Marsden Hospital**  
Fulham Road  
LONDON  
United Kingdom  
SW3 6JJ

**Study participating centre**  
**New Cross Hospital**  
The Royal Wolverhampton NHS Trust  
The Chesnuts  
WOLVERHAMPTON  
United Kingdom  
WV10 0QP

**Study participating centre**  
**Torbay Hospital**  
Lowes Bridge  
TORQUAY  
United Kingdom  
TQ2 7AA

**Study participating centre**  
**Lincoln County Hospital**  
Greetwell Road  
LINCOLN  
United Kingdom  
LN2 5QY

**Study participating centre**  
**Pilgrim Hospital**  
Sibsey Rd  
BOSTON  
United Kingdom  
PE21 9QS

**Study participating centre**  
**University College Hospital**  
235 Euston Road  
LONDON  
United Kingdom  
NW1 2BU

**Study participating centre**  
**National Hospital for Neurology and Neurosurgery**  
Queen Square  
LONDON  
United Kingdom  
WC1N 3BG

**Study participating centre**  
**Royal Derby Hospital**  
Utttoxeter Road,

DERBY  
United Kingdom  
DE22 3NE

**Study participating centre**

**Queen's Hospital**  
Belvedere Road,  
Burton Upon Trent  
STAFFORDSHIRE  
United Kingdom  
DE13 0RB

**Study participating centre**

**Southampton General Hospital**  
Tremona Road  
Southampton  
HAMPSHIRE  
United Kingdom  
SO16 6YD

**Study participating centre**

**Queen Elizabeth Hospital**  
Heritage Building  
Edgbaston  
BIRMINGHAM  
United Kingdom  
B15 2TH

**Study participating centre**

**Birmingham Heartlands Hospital**  
Bordesley Green Road  
BIRMINGHAM  
United Kingdom  
B9 5SS

**Study participating centre**

**Good Hope Hospital**  
Rectory Road  
SUTTON



COLDFIELD  
United Kingdom  
B75 7RR

**Study participating centre**  
**Bristol Royal Infirmary**  
Upper Maudlin Street  
BRISTOL  
United Kingdom  
BS2 8HW

**Study participating centre**  
**University Hospital Coventry**  
Clifford Bridge Road  
COVENTRY  
United Kingdom  
CV2 2DX

**Study participating centre**  
**Royal Bournemouth Hospital**  
Castle Lane East  
BOURNEMOUTH  
United Kingdom  
BH7 7DW

**Study participating centre**  
**Poole Hospital**  
Longfleet House  
POOLE  
United Kingdom  
BH15 2JB

**Study participating centre**  
**Leicester Royal Infirmary**  
Infirmary Square  
LEICESTER  
United Kingdom  
LE1 5WW

**Study participating centre**  
**Glenfield Hospital**  
Grobby Rd,  
Leicester  
United Kingdom  
LE3 9QP

**Study participating centre**  
**Leicester Children's Hospital**  
Leicester Royal Infirmary  
Infirmary Square  
LEICESTER  
United Kingdom  
LE1 5WW

**Study participating centre**  
**Royal Lancaster Infirmary,**  
Ashton Road  
LANCASTER  
United Kingdom  
LA1 1RP

**Study participating centre**  
**Furness General Hospital**  
Dalton Lane  
BARROW IN FURNESS  
United Kingdom  
LA14 4LF

**Study participating centre**  
**University Hospitals of North Midlands NHS Trust**  
Newcastle Road,  
Stoke-on-Trent  
STAFFORDSHIRE  
United Kingdom  
ST4 6QG

**Study participating centre**  
**Derriford Hospital**  
Derriford Road  
PLYMOUTH

United Kingdom  
PL6 5FP

**Study participating centre**  
**Walsall Manor Hospital**  
Moat Road  
WALSALL  
United Kingdom  
WS2 9PS

**Study participating centre**  
**Warrington Hospital**  
Lovely Lane  
WARRINGTON  
United Kingdom  
WA5 1QG

**Study participating centre**  
**Watford General Hospital NHS Trust**  
Vicarage Road  
WATFORD,  
United Kingdom  
WD18 0HB

**Study participating centre**  
**West Suffolk NHS Foundation Trust**  
Hardwick Lane  
Bury St Edmunds  
SUFFOLK  
United Kingdom  
IP33 2QZ

**Study participating centre**  
**Worthing Hospital**  
Lyndhurst Road  
WORTHING  
United Kingdom  
BN11 2DH

**Study participating centre**

**St Richard's Hospital**

Spitalfield Lane  
CHICHESTER  
United Kingdom  
PO19 6SE

**Study participating centre**

**Whittington Health NHS Trust**

Magdala Avenue  
LONDON  
United Kingdom  
N19 5NF

**Study participating centre**

**Arrowe Park Hospital**

Arrowe Park Road  
UPTON  
BIRKENHEAD  
United Kingdom  
CH49 5PE

**Study participating centre**

**Alexandra Hospital**

Woodrow Drive  
REDDITCH  
United Kingdom  
B98 7UB

**Study participating centre**

**Worcestershire Royal Hospital,**

Charles Hastings Way,  
Worcester,  
United Kingdom  
WR5 1DD

**Study participating centre**

**Royal Albert Edward Infirmary**

The Hawthorns  
Wigan Lane  
WIGAN

United Kingdom  
WN1 2NN

**Study participating centre**  
**Hereford County Hospital**  
Union Walk  
HEREFORD  
United Kingdom  
HR1 2ER

**Study participating centre**  
**Yeovil District Hospital**  
Higher Kingston  
YEOVIL  
United Kingdom  
BA21 4AT

**Study participating centre**  
**York Teaching Hospitals NHS Foundation Trust**  
Wiggington Road  
YORK  
United Kingdom  
YO31 8HE

**Study participating centre**  
**Scarborough General Hospital**  
Woodlands Drive North  
SCARBOROUGH  
United Kingdom  
YO12 6QL

**Study participating centre**  
**Leighton Hospital**  
Leighton  
Crewe  
United Kingdom  
CW1 4QJ

**Study participating centre**

**Ulster Hospital**

Upper Newtownards Rd  
Dundonald  
Belfast  
United Kingdom  
BT16 1RH

**Study participating centre****Bristol Royal Hospital for Children**

Upper Maudlin Street  
Bristol  
United Kingdom  
BS2 8BJ

**Study participating centre****Antrim Area Hospital**

45 Bush Rd  
Antrim  
United Kingdom  
BT41 2RL

**Study participating centre****Altnagelvin Area Hospital**

Glenshane Road  
Londonderry  
United Kingdom  
BT47 6SB

**Study participating centre****Royal Brompton Hospital**

Sydney Street  
London  
United Kingdom  
SW3 6NP

**Study participating centre****Midland Metropolitan University Hospital**

Grove Lane  
Smethwick  
United Kingdom  
B66 2QT

# Sponsor information

## Organisation

Accord (United Kingdom)

## Sponsor details

47 Little France Cres

Edinburgh

United Kingdom

EH16 4TJ

+44 (0)131 242 3330

ACCORD@nhslothian.scot.nhs.uk

## Sponsor type

Research organisation

## Website

<http://accord.scot/>

## ROR

<https://ror.org/01x6s1m65>

# Funder(s)

## Funder type

Charity

## Funder Name

Sepsis Research (FEAT)

## Funder Name

Intensive Care Society

## Funder Name

Wellcome Trust

## Alternative Name(s)

Wellcome, WT

**Funding Body Type**

Private sector organisation

**Funding Body Subtype**

Trusts, charities, foundations (both public and private)

**Location**

United Kingdom

**Funder Name**

Medical Research Council

**Alternative Name(s)**

Medical Research Council (United Kingdom), UK Medical Research Council, MRC

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

United Kingdom

## Results and Publications

**Publication and dissemination plan**

Peer-reviewed scientific journals, internal report, conference presentation, publication on website

**Intention to publish date**

31/08/2030

**Individual participant data (IPD) sharing plan**

The datasets generated during and/or analysed during the current study will be stored in a publicly available repository ([genomicc.org/data](https://genomicc.org/data)).

Type of data that will be shared: summary statistics for GWAS data

When the data will become available and for how long: data will be available as soon as the analysis is completed to a satisfactory standard and will be maintained indefinitely.

By what access criteria the data will be shared including with whom, for what types of analyses, and by what mechanism: Summary data will be publicly available to the public when the analysis has been completed to a satisfactory standard. Prior to the completion of the analysis, the summary statistics, or intermediate files may be made available to collaborators to assist with other analysis plans

Whether consent from participants was obtained: consent has been obtained. The data to be shared openly is summary data and does not contain any identifiable information or data relating to individual genomes



Comments on data anonymisation, any ethical or legal restrictions, any other comments: The summary data/summary statistics do not contain data relating to individual genomes or identifiable information. The exported data are summary statistics that do not contain individual information about individuals. The researchers are using variants with a minor allele frequency (MAF) of 1% which avoids identification of individuals using genetic data (because at least 1% of the population will have the minor allele of the variant which is enough people to be impossible to identify).

## IPD sharing plan summary

Stored in publicly available repository

## Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
<a href="#">Preprint results</a>	genome-wide association study results  Critical COVID-19 results	08/05/2021	01/06/2021	No	No
<a href="#">Preprint results</a>		08/03/2021	01/06/2021	No	No
<a href="#">Preprint results</a>		22/04/2021	01/06/2021	No	No
<a href="#">Results article</a>		04/03/2021	01/06/2021	Yes	No
<a href="#">Results article</a>		07/03/2022	31/03/2022	Yes	No
<a href="#">Results article</a>		17/05/2023	25/05/2023	Yes	No
<a href="#">HRA research summary</a>			28/06/2023	No	No
<a href="#">HRA research summary</a>			28/06/2023	No	No