UK Heart Failure with Preserved Ejection Fraction Registry (UK HFpEF)

Access Procedures

V1.0 01/12/2025

FUNDED BY
NIHR | National Institute for Health Research
British Heart Foundation

Background

UK HFpEF objectives

The overall objectives of the UK HFpEF programme are to accelerate the development of new treatments for HFpEF and in doing so, improve patient quality of life and outcomes. To achieve this, we aim to:

1. Develop a large, prospective, extensively characterised and sustainable Registry of patients with HFpEF to allow detailed investigations of the causes of HFpEF, identify more aetiologically homogenous subtypes, identify theragnostic and prognostic biomarkers, and prioritise therapeutic targets as a basis for de-risking drug development.
2. Establish an open access national HFpEF translational research platform to maximise access to the resource, promote innovative HFpEF science and accelerate discovery.
3. Establish a national HFpEF trial platform, which continuously recruits via the Registry, for efficient and targeted evaluation of multiple interventions.
4. Position the UK as the most attractive country globally for life sciences industry investment in HFpEF research, through achieving aims 1 to 3, and by providing a co-ordinated, UK-wide point of access.

The scientific rationale of UK HFpEF is described in more detail in: UK HFpEF Collaborative Group. Rationale and design of the United Kingdom Heart Failure with Preserved Ejection Fraction Registry. Heart. 2024;110(5):359-365; and at the UK HFpEF website (https://www.ukhfpef.org/).

UK HFpEF funding

The original funding from the National Institute for Health and Care Research (NIHR), awarded in 2021, enabled us to establish the UK HFpEF programme. This included setting up study infrastructure, establishing oversight and patient committees and their regular meetings, developing the UK HFpEF Network, opening the Registry at >25 sites and beginning recruitment (initial approximately 1,000 patients).

The British Heart Foundation (BHF) Special Project Grant, “UK HFpEF: A national resource to accelerate therapeutic innovation in HFpEF”, was awarded in 2024, with the following Workstreams:

1. Scale recruitment to and enrich the UK HFpEF Registry. Including scaling recruitment to 7,000 patients, and enriching the data resource with national health data linkage, automated cardiac MRI analysis and UK Biobank control subjects.
2. Establish a world-leading open access translational HFpEF research platform. The thinking behind this is that maximising access to the resource will promote innovation and discovery, maximise impact, help sustain the programme, and enable more efficient, effective and joined-up HFpEF research.
3. Conduct a research driver project that will serve to operationalise the resource, demonstrate its unique value, generate data that will form a strong foundation for all future HFpEF research and that will attract external investment to facilitate sustainability.

Central principles for these Access Procedures

1. UK HFpEF is focused on HFpEF.
2. A key driver behind UK HFpEF is the recognition that a complex disease such as HFpEF requires a large scale, co-ordinated effort. Along these lines, the UK HFpEF Network represents a collaborative, interdisciplinary group of HFpEF-interested clinicians, researchers, methodologists and patients.
3. UK HFpEF is dependent on the hard work, time and dedication of teams at recruiting sites.
4. Key aims of UK HFpEF are to:
    a. Be a platform to support and enable HFpEF research, and to facilitate a co-ordinated approach to HFpEF research.
    b. Support recruitment to HFpEF trials.

   c. Support the development of early career researchers interested in HFpEF.
   d. Enable international collaboration with other similar national initiatives to allow, for example, investigation of regional variations in HFpEF and enable international trials.
5. UK HFpEF can only continue to be viable with appropriate funding. Aside from recruitment, ongoing funding is required for sample storage; data storage, management and secure access; study governance; and study administration and management. We aim to sustain UK HFpEF for as long as the unmet need remains, and it remains of value.

Engagement

These access procedures have been established through discussions involving the UK HFpEF Executive Steering Committee, UK HFpEF Network, Sponsor and patients.

General points

These Access Procedures refer to three broad access types:
1. Access to data
2. Access to biosamples
3. Re-contact studies

The consent of each participant to take part in UK HFpEF represents the cornerstone of the activities of UK HFpEF. UK HFpEF considers that the informed participant consent itself, taken in the context of the recruitment process, the informational materials, and subsequent communications, sets out the framework within which UK HFpEF operates. The relevant documents are available at the UK HFpEF website.

All applications to use the UK HFpEF Resource[§] will be checked to ensure that they are consistent with these Access Procedures and the consent that was provided by participants.

These Access Procedures will form the basis for the UK HFpEF Access Agreement, a legal agreement with the UK HFpEF Sponsor covering the permitted use of data and samples, which Researcher Organisations* will be required to sign before Researchers[†] gain access.

Safeguards will be maintained to help ensure the anonymity and confidentiality of participants' data and samples. As part of the Access Agreement, Researcher Organisations and Researchers will agree not to make any attempt to identify participants.

The UK HFpEF Sponsor will remain the owner of the database and data and the custodian of the samples.

The UK HFpEF protocol is broad, encompassing a wide range of data and sample analyses. Proposed data or sample analyses not covered by the UK HFpEF protocol will require their own, dedicated Research Ethics Application and Health Research Authority approval.

UK HFpEF data are stored in the BHF Data Science Centre/UK Secure eResearch Platform Trusted Research Environment (TRE). The TRE enables highly secure and privacy-preserving access. Deidentified data are accessed and analysed in a secure analysis environment, access to which is controlled and on a named person basis only, with individual user authentication. Outputs[‡] from the analysis environment are controlled. Activity is audited.

The UK HFpEF Executive Steering Committee shall continue to actively engage with patients and carers, and the heart failure field, regarding the research that is being conducted and the findings that emerge throughout the lifetime of UK HFpEF.

These Access Procedures will be reviewed regularly by the Executive Steering Committee with input from the UK HFpEF Network.

Definitions

[†]'Researcher' refers to any researcher authorised by UK HFpEF to access the Resource, and could include a researcher affiliated to a clinical, academic, charitable, governmental or commercial entity.

*'Researcher Organisation' refers to the organisation to which the Researcher is affiliated.

[‡]'Outputs' refer to data outputs (e.g., tables, figures) from data analyses performed within the TRE secure analysis environment.

[§]'Resource' refers to the UK HFpEF Registry including data and samples

The ‘UK HFpEF Network’ means the Executive Steering Committee, recruiting site teams, methodologists involved and the Patient Advisory Group.

Access to Data

Researchers who are part of the UK HFpEF Network will get priority access over external Researchers.

Access to data will be on a Project specific basis.

Researchers wishing to access data are required to submit a Project proposal describing the aims of the project, details of the data analysis that they wish to perform, and the expected outputs.

All Project proposals will be reviewed by the UK HFpEF Executive Steering Committee. Proposals will be reviewed in the context of the objectives of UK HFpEF and projects that have already been approved. If a new Project proposal is similar to or overlaps with an ongoing project, the Committee may suggest a collaboration.

Summaries of Approved Projects will be published on the UK HFpEF website so that researchers can see Projects that are ongoing. A list of available data fields and methods used for their collection will be also published on the website, which will be updated as more data is added.

Outputs require approval by the UK HFpEF Executive Steering Committee, or a nominated Subcommittee of the Executive Steering Committee, before they will be released from the analysis environment.

Researchers are required to make available to UK HFpEF any new data derived so it can be incorporated into the UK HFPEF database, and details of their methods, before Outputs will be released. This is so that the data and methods are available for other Researchers to use.

If a Project generates new data that enhances the UK HFpEF dataset, for example analysis of scan images to generate measurements, Researchers will be entitled to a 9-month preferred access period during which time they will have exclusive access to data they have generated linked to the other UK HFpEF data. The preferred access period will begin once the new data have been returned to UK HFpEF. Data have to be returned before the other linked data from UK HFpEF will be made available to the Researchers. Once the preferred access period has ended, the new data will be available for other Researchers to apply to access.

Accessing UK HFpEF data will carry a charge. Fees will be set by the UK HFpEF Executive Steering Committee, in discussion with the UK HFpEF Network, and will be published on the website. Fees will be reduced for Researchers who are part of the UK HFpEF Network. The process will be operated in good faith and will be monitored by the UK HFpEF Executive Steering Committee in conjunction with the UK HFpEF Network.

Synergistic analyses between UK HFpEF and similar national initiatives in other countries will not generally carry access charges to avoid bidirectional charges.

The process of accessing data will open after many thousands of participants have been recruited. This is because a larger dataset will provide more meaningful findings. The exact timing will be determined by the UK HFpEF Executive Steering Committee, in discussion with the UK HFpEF Network, and will depend on factors such as cohort size, rate of recruitment, funding. It is expected that a baseline characteristics-type paper will be written to describe the cohort before opening access.

Access to Biosamples

Biosamples are a limited and depletable resource. Access to the biosamples will therefore be very carefully controlled and coordinated.

Researchers who are part of the UK HFpEF Network will get priority access over external Researchers.

Researchers wishing to access biosamples will be required to submit a Project proposal describing the aims of the Project, details of the assay, planned analyses and expected outputs.

All Project proposals will be reviewed by the UK HFpEF Executive Steering Committee. Proposals will be reviewed in the context of the objectives of UK HFpEF and projects that have already been approved. In addition, generating assay data from biosamples for the entire cohort at one time will facilitate good quality control by reducing measurement error and assay drift, minimise sample depletion, minimise freeze-thaw damage and minimise costs. As such, requests for access to biosamples will generally only be considered where they are undertaken on the whole (or a large subset) of the cohort, the assay data are applicable to a range of researchers, the assay method is well validated and uses minimal sample volume, and the laboratory can adhere to strict quality control measures. The quantity of sample that is required will be judged against the potential benefits of the analysis, with advice from appropriate experts as required.

Summaries of Approved Projects will be published on the UK HFpEF website so that researchers can see Projects that are ongoing. A list of available assay data and methods used for their collection will be also published on the website.

Researchers are required to make available to UK HFpEF the assay data that they generate so that it can be incorporated into the UK HFPEF database, and details of their methods, before outputs will be released. This is so that the assay data and methods are available for other Researchers to use.

Researchers generating assay data will be entitled to a 9-month preferred access period during which time they will have exclusive access to the assay data they have generated linked to the other UK HFpEF data. The preferred access period will begin once the assay data have been returned to UK HFpEF. Assay data have to be returned before the other linked data from UK HFpEF will be made available to the Researchers. Once the preferred access period has ended, the assay data will be available for other Researchers to apply to access.

Once biosample access for an assay is approved, the process is generally expected to progress through the following steps: 1. A pilot/test phase to ensure the performance characteristics of the assay are as expected; 2. Assay measurement on the biosamples. Tranching of biosamples may be necessary, particularly where the assay will take a reasonable period to complete; 3. Availability: At the end of the preferred access period, the assay data will be made available for other researchers to apply to access.

Biosample access charges will be reviewed on a case-by-case basis by the UK HFpEF Executive Steering Committee and will depend on the nature of the request.

Access to biosamples will open at the same time as access to data opens. See ‘Access to Data’ section above.

Note regarding industry access to data and biosamples

UK HFpEF participants specifically provide consent for commercial companies to access their study data and biosamples for research purposes.

Some research activities and procedures are very expensive, beyond that which academic research funders can typically support. Industry may provide a route for conducting such activities. For example, the UK Biobank Pharma Proteomics Project, comprising a precompetitive consortium of 15 biopharmaceutical companies, enabled proteomic assay data generation in UK Biobank, the cost of which was many millions of pounds, in return for a 9-month exclusive access period to the proteomic data linked to the other UK Biobank data for members of the consortium.

As such, approaches from industry for access to data and biosamples will be considered by the UK HFpEF Executive Steering Committee, with input and advice from the UK HFpEF Network as required. Nevertheless, any collaboration with industry must result in substantial benefit for UK HFpEF.

If approved, the process for industry access is the same as set out above in the ‘Access to Data’ and ‘Access to Biosamples’ sections.

Re-contact studies

It is expected that Re-contact studies will take one of the following forms:

1. Additional phenotyping of a subset of UK HFpEF participants
2. Additional phenotyping of all UK HFpEF participants
3. Identification of UK HFpEF participants to take part in trials or other studies

UK HFpEF participants provide consent to being contacted regarding up to 4 Re-contact studies per year. As such, Re-contact studies are considered a depletable resource and will be carefully coordinated by the UK HFpEF Executive Steering Committee.

Researchers that wish to re-contact UK HFpEF participants will be required to submit a Project proposal describing the aims of the Project, estimated numbers of participants that they wish to re-contact, sites involved, time scales and expected outputs.

Researchers who are part of the UK HFpEF Network will get priority for Re-contact studies over external Researchers.

Requests for Re-contact studies will be reviewed by the UK HFpEF Executive Steering Committee.

Summaries of Approved Re-contact studies will be published on the UK HFpEF website so that Researchers can see Projects that are ongoing.

It is expected that Re-contact studies involving phenotyping of a subset of UK HFpEF participants (point 1 above), and trials and other studies (point 3 above), will require their own, dedicated Research Ethics Committee and Health Research Authority approvals. The UK HFpEF team will have the right to input to materials for such studies (e.g., information sheets and consent forms) to assist Researchers in optimising their planned research and to ensure that UK HFpEF processes are followed appropriately.

It is expected that Re-contact studies involving additional phenotyping of all UK HFpEF participants (point 2 above) will be managed via an amendment to the UK HFpEF protocol and ethics approval, if not already covered.

Process of Re-contact: It is expected that UK HFpEF and the Re-contact study will both be open at sites involved. The UK HFpEF team will identify UK HFpEF participants that are eligible for the Re-contact study via the UK HFpEF database. Sites will be notified of UK HFpEF participants that are eligible for the Re-contact study. Re-contact will be made by the site team. All sites are NHS hospitals.

For the avoidance of doubt regarding commercial Re-contact studies: NHS sites shall be notified of UK HFpEF participants that are eligible for the Re-contact study. The Re-contact will be made by the NHS team. No personal data will be passed to the commercial entity.

It will be agreed in advance which data collected as part of the Re-contact study will be returned to the UK HFpEF database, and which data from the UK HFpEF database will be made available to the Re-contact study. The former is required to be returned before the latter are released.

Identification of patients for academic Re-contact studies will be without charge. Identification of patients for commercial studies being conducted at NHS sites shall carry a charge, which will be determined by the UK HFpEF Executive Steering Committee in discussion with the UK HFpEF Network.

To support other HFpEF research, and to help enrich the UK HFpEF database as it is developing, applications for Re-contact studies will be accepted forthwith, but no data will be released until data access is open – see Access to Data section above.

Reporting activity and time frames

Researchers are required to complete Projects within a reasonable time frame, which will be agreed at the Project approval stage. As an indication, Projects involving analysis of existing data are expected to submit an End of Project report by 1 year following project approval. Projects involving generation of new data or analysis of biosamples are expected to submit an End of Project report by 3 years following Project approval. The UK HFpEF team reserves the right to withdraw access if Projects are not completed within agreed time frames.

Researchers are required to submit an End of Project report, available via the UK HFpEF website.

For Projects lasting more than 1 year, Researchers are required to complete an Annual Report form, available via the UK HFpEF website. The UK HFpEF team reserves the right to withdraw access if this is outstanding for more than 2 months.

Publishing

Researchers are required to publish their findings. Publication should occur in an academic journal as soon as practically possible and in any event within 6 months after the completion date of the Project.

Authorship should follow the UK HFpEF Authorship Policy, available on the website.

All publications using the UK HFpEF Resource are required to include the term “UK HFpEF” in the title and/or abstract and include the following text in the acknowledgement section: ““This research has been conducted using the UK HFpEF Resource (NCT05441839) under Project application number [ ]. UK HFpEF is funded by the National Institute for Health and Care Research (NIHR301848) and the British Heart Foundation (SP/F/24/150066).”

Researchers should seek appropriate expert advice on whether any Intellectual Property generated needs to be protected before publishing and/or commercially sensitive information be omitted. If a patent application is required before publishing, it is acceptable to delay publishing by 3 months (subject to the terms set out below).

Researchers should provide a copy of any publication, meeting abstract or press release to UK HFpEF at least 4 weeks before their expected date of publication or presentation. Researchers are also required to advise UK HFpEF in advance if any report or press release that is reasonably likely to provoke controversy or otherwise attract significant public attention.

Intellectual property

The UK HFpEF Sponsor is the owner of the database and data and the custodian of the samples (which will be added to, and updated, throughout the life of the Resource), and will remain so.

The UK HFpEF Sponsor retains all the intrinsic Intellectual Property rights in the data in the Resource, including the database rights and copyright.

The UK HFpEF Sponsor and the Researcher Organisation will grant to each other a licence to any Background (pre-existing) Intellectual Property they own that the other party needs to use for the Approved Project only. In the case of the licence to the UK HFpEF Sponsor, this shall be sub-licensable by the UK HFpEF Sponsor to organisations involved with UK HFpEF, for example the host of the Trusted Research Environment where the data will be accessed.

The Researcher Organisation will be granted a licence (but not any ownership rights) to use the data and/or samples to conduct the Approved Project only. The licence is non-exclusive, non-transferable, and non-sub-licensable.

Individual participant data ('Individual Data') generated by the Researcher using UK HFpEF data and samples shall be owned by the UK HFpEF Sponsor. This includes, for example, analysis data, derived variables including derived phenotypes, data generated from analysing scans, data generated from analysing samples, assay methods. All data and assay methods will be incorporated into the UK HFpEF database and shall be available to share with other Researchers for use in other Approved Projects. The UK HFpEF Sponsor will not share, transfer or distribute the Individual Data to other Researchers until the expiration of the relevant preferred access period. Foreground Intellectual Property rights, excluding the Individual Data, shall be owned by the Researcher Organisation.

For example, if a Researcher working at an Organisation was to analyse scan images as part of an Approved Project, the measurements made by the Researcher from the scan images would belong to the UK HFpEF Sponsor, but analysis software developed by the Researcher using the data would belong to the Researcher Organisation.

Commercialisation of the Foreground Intellectual Property requires the written consent of the UK HFpEF Steering Committee, including the UK HFpEF Sponsor, which shall not unreasonably be withheld. Commercialisation terms must comply with the conditions of the funders of UK HFpEF and may include recognition of the value that UK HFpEF contributed to the project and its findings, which may include revenue-sharing, an equity stake, or other benefit or remuneration.

The Researcher Organisation grants the UK HFpEF Sponsor the right (but not the obligation) to have a non-exclusive, worldwide, fully paid-up, royalty-free, fully sub-licensable licence to use the Outputs from the Approved Research Project for the purpose of publishing the research findings in the event that the Researcher Organisation does not publish them in accordance with the publishing terms above.

The Researcher Organisation grants the UK HFpEF Sponsor the right (but not the obligation) to take an irrevocable, perpetual, worldwide, fully paid-up, royalty-free, fully sub-licensable licence or an assignment of all the Foreground Intellectual Property, including the right to apply for patent protection and take over the maintenance of any existing patents, in the event that the Researcher Organisation does not exploit the Foreground Intellectual Property for patient benefit (via either free dissemination or commercialisation as appropriate) within a reasonable period, or in the event that the Researcher Organisation uses their rights associated with the Foreground Intellectual Property to unreasonably restrict health-related research or access to healthcare.

The Researcher Organisation grants the UK HFpEF Sponsor the right (but not the obligation) to take a licence (on fair and reasonable terms) to any Background Intellectual Property needed to exploit the Foreground Intellectual Property.

Regarding Re-contact studies with their own Research Ethics Committee and Health Research Authority approvals: data collected as part of the Re-contact study, and Foreground Intellectual Property generated during the Re-contact study, will be owned by the Researcher Organisation. As stated in the Re-Contact study section above, it will be agreed in advance which data collected as part of the Re-contact study will be returned to the UK HFpEF database - the Researcher Organisation shall grant to the UK HFpEF Sponsor a non-exclusive, worldwide, fully paid-up, royalty-free, perpetual, irrevocable, fully sub-licensable licence for these agreed data to be stored in the UK HFpEF database and used by other Researchers for use in other Approved Projects.

Regarding the use of Artificial Intelligence (AI) applications and models:

- Projects involving AI should be carried out in accordance with the relevant prevailing standards on AI usage and in line with the UK Government's 'Implementing the UK's AI Regulatory Principles' as well as appropriate research-relevant standards (e.g., Tripod-AI, Consort/Spirit AI, DECIDE-AI).
- If a Researcher develops a proprietary AI model, which has been trained on UK HFpEF participant level data (whether in whole or part):
    - The Researcher Organisation is entitled to retain the run file that establishes the functioning of the model (the model architecture) and can use and licence this model as it sees reasonably fit. The software for the model and the model architecture shall belong to the Researcher Organisation.
    - Any parameters derived from the UK HFpEF data by/for the AI model shall be regarded as Individual Data and will be incorporated into the UK HFpEF database and shall be sharable with other Researchers for use in other Approved Projects.
    - Subject to the above clause regarding commercialisation, the Researcher Organisation can make the trained AI model available to third parties, but they must ensure that using the trained AI model (by the Researcher Organisation or a third party) does not:
        - retrieve copies (in whole or part) of individual participant level UK HFpEF data; generate the equivalent (actual or synthetic) individual participant level data; or otherwise serve to create a research environment which is equivalent or comparable to using UK HFpEF individual participant level data; or
        - generate outputs with minimum numbers that could identify individuals.
- Researchers must not directly or indirectly feed or enable UK HFpEF individual participant level data to be incorporated into any publicly available Generative AI or similar model. Researchers must not make the data publicly available on any searchable website, for example, by posting it to a repository.