

Understanding patients with elevated pulmonary arterial pressure

Submission date 12/04/2021	Recruitment status No longer recruiting	<input type="checkbox"/> Prospectively registered <input checked="" type="checkbox"/> Protocol
Registration date 09/06/2021	Overall study status Completed	<input type="checkbox"/> Statistical analysis plan <input checked="" type="checkbox"/> Results
Last Edited 19/07/2024	Condition category Circulatory System	<input type="checkbox"/> Individual participant data

Plain English summary of protocol

Background and aims:

Pulmonary Arterial Hypertension (PAH) is a serious, rare condition caused by a narrowing of the blood vessels (pulmonary artery) that connect the heart to the lungs. This leads to an increase in the pressure inside the pulmonary artery and therefore the heart has to work much harder to move blood through the lungs and body. A diagnosis of pulmonary hypertension occurs when the mean Pulmonary Arterial (PA) pressure is >25mmHg. Pulmonary hypertension is associated with a high chance of disability and death.

However, it is known a mean PA pressure of 21-24mmHg, is abnormal. With a better understanding of the abnormal haemodynamics effect on prognosis, there may be a better chance for clinicians to intervene earlier and change the overall progression of the disease. In this study patients with "mild/borderline" pulmonary hypertension will be identified and the progression of their disease will be studied to determine who might develop definite pulmonary hypertension. It is important to understand this patient group in greater detail. This will safely inform clinical decision making and help develop guidance for this patient cohort, who have abnormal haemodynamics, but do not fulfil the current definition of pulmonary hypertension.

Who can participate?

This study will include data from adult patients who have received multiple right heart catheter (RHC) procedures. Participants will not be approached to take part in this study as it is an observational study of past patient data.

What does the study involve?

This study will collect data of patient and clinical characteristics, biomarkers, therapies and prognosis from the period between 01/01/2009 and 01/03/2020 for patients who fulfil the eligibility criteria.

What are the possible benefits and risks of participating?

Though this study may not benefit participants whose data will be used, it may help researchers to understand this patient group in greater detail and to safely inform clinical decision making and help develop guidance for this patient cohort. No risks are anticipated as part of this study as it will look at past patient data only.

Where is the study run from?

The Royal Free London NHS Foundation Trust (UK) and will collect data from 7 UK hospital sites

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

From May 2021 to August 2021

Who is funding the study?

Actelion Pharmaceuticals Ltd (Switzerland)

Who is the main contact?

Dr Nina Karia

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Contact information

Type(s)

Scientific

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Additional identifiers

Integrated Research Application System (IRAS)

125796

Study information

Scientific Title

Phenotyping individuals with elevated mean pulmonary arterial pressure and elevated pulmonary vascular resistance in the United Kingdom

Acronym

EVIDENCE-PAH

Study objectives

To understand the patient cohort, with "mild/borderline" pulmonary hypertension (pulmonary arterial pressure between 21 and 24 mmHg) who do not fulfil the current definition of pulmonary hypertension, and determine who might develop definite pulmonary hypertension, with the aim to safely inform clinical decision making and help develop guidance for this patient cohort.

Ethics approval required

Old ethics approval format

Ethics approval(s)

Approved 23/03/2020, London - Harrow Research Ethics Committee (Level 3, Block B Whitefriars Lewins Mead Bristol BS1 2NT; +44 (0)207 104 8098; harrow.rec@hra.nhs.uk), ref: 20/LO/0344

Study design

Multicenter retrospective observational cohort study

Primary study design

Observational

Study type(s)

Diagnostic

Health condition(s) or problem(s) studied

Pulmonary arterial hypertension

Interventions

This retrospective, observational, multi-center study aims to describe patient and clinical characteristics, biomarkers, therapies, and prognosis of patients categorized into 3 groups based on their Mean pulmonary arterial pressure (mPAP) (<21, ≥21-<25, or ≥25 mmHg) and Pulmonary vascular resistance (PVR) (<2, ≥2-<3, or ≥3 WU) measurements. In addition, quality of life, hospitalization, and mortality data (to be obtained from HES and ONS or ISD in Scotland) will be compared across patient cohorts.

Research teams will collect data on approximately 2,000 patients who had previously undergone a Right Heart Catheterisation (RHC) procedure in one of the participating pulmonary hypertension (PH) specialist centers in a routine clinical practice setting during the eligibility period 01/01/2009 to 31/12/2017 and fulfilled all the inclusion criteria and none of the exclusion criteria.

The first RHC will be the baseline point of data collection and will be compared to their annual follow-up visit data, which will be collected for a maximum of 11 years (01/03/2020) or until the patient's death.

Intervention Type

Other

Primary outcome(s)

1. Hospitalization measured using the incidence of inpatient hospitalization events due to any cause anytime during the observation period (01/01/2009 to 01/03/2020) from retrospective HES and ONS or ISD data collection at a single timepoint
2. Mortality rates measured using the time to all-cause mortality anytime during the observation period (01/01/2009 to 01/03/2020) from retrospective HES and ONS or ISD data collection at a single timepoint

Key secondary outcome(s)

1. Quality of life measured using the Cambridge Pulmonary Hypertension Outcome Review (CAMPHOR) or emPHasis-10 questionnaire anytime during the observation period (01/01/2009 to 01/03/2020) from retrospective HES and ONS or ISD data collection at a single timepoint
2. Progression to Pulmonary Hypertension measured using the date of Right Heart Catheterisation (RHC) anytime during the observation period (01/01/2009 to 01/03/2020) when the measured mPAP is ≥25 mmHg for the first time after the index RHC from retrospective HES and ONS or ISD data collection at a single timepoint

Completion date

31/08/2021

Eligibility

Key inclusion criteria

1. Aged ≥18 years at time of the first right heart catheter (RHC) procedure within the eligibility period

2. ≥ 1 RHC procedure in one of the pulmonary hypertension specialist or approved centers within the eligibility period

Participant type(s)

Patient

Healthy volunteers allowed

No

Age group

Adult

Lower age limit

18 years

Sex

All

Key exclusion criteria

1. Missing value for mean Pulmonary Arterial Pressure or Pulmonary Vascular Resistance at the right heart catheter (RHC) procedure
2. Received any Pulmonary arterial hypertension medications before the first RHC procedure
3. Lung and/or heart transplant any time before the first RHC procedure
4. Enrolled in any interventional clinical trial with an investigational product within the 3 months prior to, or at the time of, the first RHC procedure within the eligibility period

Date of first enrolment

01/01/2009

Date of final enrolment

01/03/2020

Locations

Countries of recruitment

United Kingdom

England

Scotland

Study participating centre

Royal Free London

Pond St

Hampstead

London

United Kingdom

NW3 2QG

Study participating centre

Hammersmith Hospital

72 Du Cane Rd
White City
London
United Kingdom
W12 0HS

Study participating centre

The Royal Brompton Hospital

Sydney St
Chelsea
London
United Kingdom
SW3 6NP

Study participating centre

Royal Hallamshire Hospital

Glossop Rd
Sheffield
United Kingdom
S10 2JF

Study participating centre

Freeman Hospital

Freeman Rd
High Heaton
Newcastle upon Tyne
United Kingdom
NE7 7DN

Study participating centre

Royal Papworth Hospital

Papworth Rd
Cambridge
United Kingdom
CB2 0AY

Study participating centre

The Golden Jubilee Hospital
Agamemnon St
Clydebank
Glasgow
United Kingdom
G81 4DY

Sponsor information

Organisation

Royal Free London NHS Foundation Trust

ROR

<https://ror.org/04rtdp853>

Funder(s)

Funder type

Industry

Funder Name

Actelion Pharmaceuticals

Alternative Name(s)

Actelion Pharmaceuticals Ltd

Funding Body Type

Private sector organisation

Funding Body Subtype

For-profit companies (industry)

Location

Switzerland

Results and Publications

Individual participant data (IPD) sharing plan

The datasets generated during and/or analysed during the current study will be stored in a non-publicly available repository (PAH tool database). Aggregate data will be shared with study funder Actelion Pharmaceuticals at the end of the study. Consent from participants was not obtained as this would bias the data. Study was reviewed and approved under section 251

support by the Confidentiality Advisory Group, allowing for the processing of confidential patient information without consent. All study data will be anonymised.

IPD sharing plan summary

Stored in repository

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		21/11/2023	19/07/2024	Yes	No
HRA research summary			28/06/2023	No	No
Protocol file	version v3.0	05/11/2020	10/06/2021	No	No
Protocol file	version v4.0	19/05/2021	01/07/2021	No	No