Use, safety and Tolerability of IntraVenous epOprostenoL (Veletri®) in patients with severe pulmonary arterIal hypertension: A 6-month, open label, multicenter,observational, non-interventional study (TIVOLI)

First published: 29/11/2019

Last updated: 18/09/2024

Study Finalised

Administrative details

EU PAS number

EUPAS32492

Study ID

45989

DARWIN EU® study

No

Study countries

Germany

Study description

This was a non-interventional, observational and prospective, multicenter study to evaluate the use, safety and tolerability of i.v. epoprostenol therapy (Veletri®) in routine practice according to the German Drug Law (AMG, §67(6)). Patients with invasively diagnosed PAH receiving targeted PAH combination treatment in need of treatment escalation with i.v. epoprostenol, according to medically indicated decision on treatment-escalation, were included in this non-interventional, observational study. This study was performed as a non-interventional trial using a prospective, open label, multicenter clinical study design with treatment according to current medical practice. Patients were assessed according to routine clinical examinations in their respective pulmonary hypertension expert center. According to the current guidelines, patients were seen in the expert center about every three months. This allowed to collect data within the first 6 months of treatment and compare changes between baseline, 3 and 6 months (~24 weeks). Routine medical examinations comprised of medical history, physical examination, electrocardiogram (ECG), laboratory testing (including NT-proBNP), echocardiography at rest, and right heart catheterization according to clinical practice of the PH center. When patients fulfilled the inclusion criteria they were invited to join the study. The prospective period of data collection comprised of a ~24-week study period and a follow-up phase of about 30±7 days. Outcome (survival and transplant-free survival) of all patients was assessed when the last patient terminated his/her ~24 week observation period.

Study status

Finalised

Contact details

Study institution contact

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Study contact

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Primary lead investigator

Ekkehard Grünig

Primary lead investigator

Study timelines

Date when funding contract was signed

Actual: 03/11/2017

Study start date

Actual: 27/03/2018

Data analysis start date

Planned: 01/04/2021

Actual: 01/04/2021

Date of final study report

Planned: 05/03/2022

Actual: 25/02/2022

Sources of funding

- Pharmaceutical company and other private sector

More details on funding

Actelion / Johnson & Johnson

Study protocol

2018-05-03 Observational trial Protocol Veletri_V 1.2.pdf (531.16 KB)

Regulatory

Was the study required by a regulatory body?

No

Is the study required by a Risk Management Plan (RMP)?

Not applicable

Other study registration identification numbers and links

BfArM NIS 7185

Methodological aspects

Study type

Study type list

Study topic:

Disease /health condition

Human medicinal product

Study type:

Non-interventional study

Scope of the study:

Assessment of risk minimisation measure implementation or effectiveness

Drug utilisation

Effectiveness study (incl. comparative)

Data collection methods:

Primary data collection

Main study objective:

To collect and explore real-life data on the use, safety and tolerability of a systematic drug management of intravenous epoprostenol (Veletri®) treatment in patients with PAH. Real-life safety and tolerability data will be obtained by listings of the frequency of i.v. epoprostenol (Veletri®)-associated adverse drug reactions (ADRs), serious adverse events (SAEs).

Study Design

Non-interventional study design

Cohort

Other

Non-interventional study design, other

Open-label, observational and prospective study

Study drug and medical condition

Study drug International non-proprietary name (INN) or common name

EPOPROSTENOL

Medical condition to be studied

Pulmonary hypertension

Population studied

Short description of the study population

Patients with PAH will receive medically indicated i.v. epoprostenol (Veletri®) according to a systematic drug management including initiation, administration, storage, handling of the infusion system and patient education. Patients in need of treatment escalation according to the current guidelines receiving at least dual oral combination treatment with two PAH-targeted drugs and having an unsatisfying long-term clinical response or are still in an intermediate or high risk group will be eligible for the study.

Eligibility criteria

Only patients with confirmed PAH already on targeted therapy who needed treatment escalation with i.v. epoprostenol were eligible to participate if they fulfilled the following criteria: This trial included adult patients of both sexes with confirmed PAH able and willing to give written informed consent. Eligible patients needed treatment escalation with i.v. epoprostenol according to current guidelines, with PAH confirmed by right heart catheter (RHC) before enrolment (i.e., mPAP ≥25 mmHg at rest, PAWP ≤15 mmHg).

Exclusion criteria comprised a known intolerance to epoprostenol or one of its excipients, pregnancy or lactation. Moreover, patients participating in any other clinical drug trial within four weeks prior to screening and/or patients scheduled

to receive any investigational medicinal product (IMP) during the course of this trial were not eligible

Age groups

- Adults (18 to < 46 years)
- Adults (46 to < 65 years)
- Adults (65 to < 75 years)
- Adults (75 to < 85 years)
- Adults (85 years and over)

Special population of interest

Other

Special population of interest, other

Pulmonary hypertension patients

Estimated number of subjects

15

Study design details

Outcomes

Frequency of adverse events and serious adverse events, To assess the real world clinical effectiveness of i.v. epoprostenol (Veletri®) - demography - vital signs - exercise capacity as measured by six minute walking distance - N-terminal pro-brain natriuretic peptide (NTproBNP) - WHO functional class - Borg dyspnea score - blood gas analysis - right heart size and function - haemodynamics - symptoms of PAH - outcome

Data analysis plan

Descriptive statistics: - All data (demographic and other baseline characteristics, continuous data at each visit and their change to baseline) will be listed and trial summary tables will be provided. The data from all centers will be pooled. - Descriptive statistics will be displayed (arithmetic mean, median, standard deviation, standard error, 95% confidence limits of mean and median, first and third quartiles, minimum, and maximum for quantitative variables). Frequency tables for qualitative data will be provided.

Documents

Study results

2022-02-24 VELETRI observational study report clean (2).pdf (406.47 KB)

Data management

ENCePP Seal

The use of the ENCePP Seal has been discontinued since February 2025. The ENCePP Seal fields are retained in the display mode for transparency but are no longer maintained.

Data sources

Data sources (types)

Other

Data sources (types), other

Prospective patient-based data collection

Use of a Common Data Model (CDM)

CDM mapping

No

Data quality specifications

Check conformance

Unknown

Check completeness

Unknown

Check stability

Unknown

Check logical consistency

Unknown

Data characterisation

Data characterisation conducted

No