

# A REtrospective Study to discOver the economic impLications of Vasospasm and delayed cErebral ischaemia (RESOLVE)

**First published:** 16/12/2022

**Last updated:** 02/06/2023

Study

Finalised

## Administrative details

### EU PAS number

EUPAS50204

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### Study ID

50205

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### DARWIN EU® study

No

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### Study countries

☐ France

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## Study description

**\*\*This study was terminated prematurely for reasons unrelated to any safety or patient-related concerns, as no data was collected no report will be produced\*\***

This is a retrospective, nationwide, multi-centre observational cohort study which aims to assess the healthcare resource utilization (HCRU) and clinical outcomes associated with the development of delayed cerebral ischaemia (DCI) following aneurysmal subarachnoid haemorrhage (aSAH). The study will use existing patient data held in medical charts and the Système National des Données de Santé (SNDS), the French national healthcare database. A total of 300 patients with aSAH will be recruited by eleven centres across France via consecutive stratified recruitment to obtain an approximately equal number of DCI and non-DCI patients. Physicians will be asked to extract relevant retrospective data from medical charts of patients admitted to their centre between 1st January 2017 and 31st December 2018. Patient chart data will be linked with data from the SNDS to obtain more comprehensive HCRU data and longer-term data on patient outcomes including mortality.

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## Study status

Finalised

## Research institutions and networks

### Institutions

**Evidence and Access/Analytica Laser, Certara**

☐ France

☐ United Kingdom (Northern Ireland)

**First published:** 24/05/2021

**Last updated:** 06/03/2024

**Institution**

**Non-Pharmaceutical company**

**ENCePP partner**

Multiple centres: 11 centres are involved in the study

## Networks

BELIEVE Scientific Committee

## Contact details

### Study institution contact

Louis Puybasset [BELIEVE.project@certara.com](mailto:BELIEVE.project@certara.com)

**Study contact**

[BELIEVE.project@certara.com](mailto:BELIEVE.project@certara.com)

### Primary lead investigator

Louis Puybasset

**Primary lead investigator**

## Study timelines

**Date when funding contract was signed**

Planned: 23/11/2021

Actual: 23/11/2021

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**Study start date**

Planned: 15/01/2023

Actual: 06/02/2023

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**Data analysis start date**

Planned: 01/06/2023

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**Date of final study report**

Planned: 31/12/2024

Actual: 06/02/2023

## Sources of funding

- Pharmaceutical company and other private sector

## More details on funding

Idorsia Pharmaceuticals Ltd

## Regulatory

**Was the study required by a regulatory body?**

No

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

Not applicable

## Methodological aspects

### Study type

**Study topic:**

Disease /health condition

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**Study type:**

Non-interventional study

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**Scope of the study:**

Disease epidemiology

**Data collection methods:**

Secondary use of data

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**Main study objective:**

To assess and compare hospital length of stay in patients with and without delayed cerebral ischaemia following aneurysmal subarachnoid haemorrhage

## Study Design

**Non-interventional study design**

Cohort

Other

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**Non-interventional study design, other**

Retrospective, nationwide, multi-centre observational study

## Study drug and medical condition

**Medical condition to be studied**

Subarachnoid haemorrhage

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**Additional medical condition(s)**

Aneurysmal subarachnoid hemorrhage

## Population studied

**Short description of the study population**

Patients with subarachnoid haemorrhage identified from the medical charts and the Système National des Données de Santé (SNDS), the French national healthcare database.

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**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)

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**Special population of interest**

Other

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**Special population of interest, other**

Patients with subarachnoid haemorrhage

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**Estimated number of subjects**

300

## Study design details

## **Outcomes**

The following patient outcomes will be assessed and compared: - Overall hospital length of stay - Intensive care unit length of stay - Length of stay in acute and subacute hospital settings (excluding inpatient rehabilitation centre stays) length of stay - Inpatient rehabilitation centre length of stay, The following patient outcomes will be assessed: - All-cause re-admissions to hospital - Imaging/diagnostic tests undertaken - Recue therapy requirements - Discharge location - Outpatient rehabilitation centre visits - All cause mortality - Direct costs - Indirect costs

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## **Data analysis plan**

Descriptive statistics will be used to describe and compare patient demographic and clinical characteristics according to patient DCI status. Propensity score methods will be used to balance differences between patients who did and did not develop DCI. Propensity scores will be derived for each patient using a logistic regression model including pre-specified confounders such as age, World Federation of Neurosurgical Societies grade, Modified Fisher scale, aneurysm size, aneurysm-securing procedure. Thereafter, the groups will be balanced using the Inverse Probability of Treatment Weighting (IPTW). Appropriate models (mixed effects logistic regression for binary variables, mixed effects linear regression model for continuous variables and count or rate variables) will be used to compare healthcare resource utilization and patient outcomes according to DCI status, accounting for IPTW.

## **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.

## Composition of steering group and observers

[Composition Scientific Committee\\_RESOLVE.pdf](#)(35.08 KB)

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## Data sources

### Data source(s), other

SNDS France

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### Data sources (types)

[Administrative healthcare records \(e.g., claims\)](#)

[Other](#)

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### Data sources (types), other

Medical chart review

## Use of a Common Data Model (CDM)

### CDM mapping

No

## Data quality specifications



**Check conformance**

Unknown

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**Check completeness**

Unknown

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**Check stability**

Unknown

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**Check logical consistency**

Unknown

## Data characterisation

**Data characterisation conducted**

No