

# Non-interventional Post-Authorisation Safety Study of Burosumab in the Treatment of Children >1 year of age, Adolescents and Adults with X-Linked Hypophosphataemia (XLH PASS)

**First published:** 06/11/2019

**Last updated:** 19/05/2025

Study

Ongoing

## Administrative details

### EU PAS number

EUPAS32190

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### Study ID

47168

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### DARWIN EU® study

No

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### Study countries

 Belgium

 Bulgaria

-  Czechia
  -  Denmark
  -  France
  -  Germany
  -  Hungary
  -  Ireland
  -  Israel
  -  Italy
  -  Latvia
  -  Netherlands
  -  Norway
  -  Portugal
  -  Slovakia
  -  Slovenia
  -  Spain
  -  Sweden
  -  Switzerland
  -  United Kingdom
  -  United Kingdom (Northern Ireland)
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## **Study description**

This is a 10-year prospective cohort study using data collected in a European disease registry for XLH. The PASS is non-interventional so all data collected will arise from the usual clinical management of these patients.

### Primary objectives

1. To evaluate the frequency and severity of safety outcomes in children and adolescents aged 1 to 17 years with radiographic evidence of bone disease and adults, and who are treated with burosumab for XLH, including but not limited to: long term safety (as evidenced by death, hospitalisations, cardiovascular

disease, cancer all sites), hyperphosphataemia and its complications, ectopic mineralisation, increased parathyroid hormone levels.

2. To prospectively evaluate the frequency and outcomes of pregnancies in female subjects treated with burosumab.

3. To prospectively evaluate the frequency and severity of safety outcomes in subjects with mild to moderate chronic kidney disease at baseline treated with burosumab.

Secondary objectives:

1. To perform a retrospective cohort analysis using data from the XLH Registry to compare the safety outcomes in subjects exposed to burosumab to those in subjects receiving alternative treatments for XLH.

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## Study status

Ongoing

## Research institutions and networks

### Institutions

**Karolinska Institutet**

 Sweden

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**Last updated:** 01/02/2024

**Institution**

**Educational Institution**

### Contact details

**Study institution contact**

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Study contact

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**Primary lead investigator**

Ola Nilsson

Primary lead investigator

## Study timelines

**Date when funding contract was signed**

Actual: 20/11/2018

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**Study start date**

Planned: 24/04/2019

Actual: 24/04/2019

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**Date of interim report, if expected**

Planned: 26/10/2020

Actual: 26/10/2021

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**Date of final study report**

Planned: 31/07/2029

## Sources of funding

- Pharmaceutical company and other private sector

## More details on funding

Kyowa Kirin International plc.

## Study protocol

[XLH Registry Protocol Amendment 2\\_Final\\_15Feb2019.pdf](#) (878.72 KB)

[XLH Registry Protocol Amendment 3 with embedded PASS\\_27Oct2021\\_clean.pdf](#)  
(1.34 MB)

## Regulatory

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

Yes

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

EU RMP category 3 (required)

## Methodological aspects

### Study type

### Study type list

### **Study topic:**

Human medicinal product

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**Study type:**

Non-interventional study

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**Scope of the study:**

Safety study (incl. comparative)

**Main study objective:**

The purpose of the study is to characterise the treatment, progression and long-term outcomes of XLH. The safety outcomes will include:

- Long term safety: Death, Hospitalisations, Cardiovascular disease, Cancer (all sites)
- Hyperphosphataemia
- Ectopic mineralisation
- Increased parathyroid hormone levels
- Effects in patients with mild to moderate chronic kidney disease at baseline

## Study Design

**Non-interventional study design**

Cohort

## Study drug and medical condition

**Medicinal product name**

CRYSVITA

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

BUROSUMAB

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### **Anatomical Therapeutic Chemical (ATC) code**

(M05BX) Other drugs affecting bone structure and mineralization

Other drugs affecting bone structure and mineralization

(M05BX05) burosumab

burosumab

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### **Additional medical condition(s)**

X-Linked Hypophosphataemia (XLH)

## Population studied

### **Age groups**

- Infants and toddlers (28 days - 23 months)
  - Children (2 to < 12 years)
  - Adolescents (12 to < 18 years)
  - 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**

Pregnant women

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### **Estimated number of subjects**

400

## Study design details

## Outcomes

1. Evaluate frequency & severity of safety outcomes in Children & Adults with XLH with radiographic evidence of bone disease, who are treated with burosumab
2. Prospectively evaluate frequency & outcomes of pregnancies in female subjects treated with burosumab
3. Prospectively evaluate frequency & severity of safety outcomes in patients with mild to moderate CKD treated with burosumab

To perform a retrospective cohort analysis using data from the XLH Registry to compare the safety outcomes in subjects treated with burosumab to those outcomes in subjects receiving alternative treatments for XLH

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## Data analysis plan

Given the orphan indication and likely relatively small number of burosumab subjects (estimated to be approximately 400 subjects in the XLH Registry at the end of 10 years) the data analysis will be in the form of descriptive statistics as the sample size will not be sufficient for formal comparative analysis.

Medical history and drug details will be captured in the XLH Registry via use of ICD10 codes and the World Health Organization Drug Dictionary (WHODD).

Adverse events will be coded using the latest version of the Medical Dictionary for Regulatory Activities (MedDRA).

## Documents

### Study, other information

[2019PASS Progress report\\_v1.0\\_11 Oct 2019\\_Final.pdf](#) (133.59 KB)

[PASS Progress report\\_v2.0\\_15 October 2020.pdf](#) (1.38 MB)

[Clinical Study Report - Approved Interim CSR - 04-Oct-2021.pdf](#) (1.48 MB)

[PASS Progress report\\_v3.0\\_04 April 2022.pdf](#) (198.31 KB)

[PASS Progress report\\_v4.0\\_05Apr2023.pdf](#) (254.01 KB)

[PASS Annual Progress Report 2024.pdf](#) (283.98 KB)

[PASS Annual Progress Report 2025.pdf](#) (651.2 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)

[Disease registry](#)

[Other](#)

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### 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

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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